GE Energy
Industrial Solutions

WORLDWIDE PARTNER

M-PACT Plus ED.03

Air Circuit Breakers
400 - 4000A

GE imagination at work

Air Circuit Breakers 400A-4000A

A.4 Fixed circuit breaker
A.6 Withdrawable circuit breaker
A.7 Characteristics
A.9 Electronic trip units
A.11 Time current curves
A.18 Accessories

M-PACT Plus

Air Circuit Breaker
400-4000A

M-PACT Plus

Rated from 400 to 4000A the M-PACT Plus circuit breaker has been designed to meet the most stringent demands in fault detection and safe interruption thereof.

Available in 2 frame sizes:
- frame size 1 ranging from 400 to 2500A
- frame size 2 ranging from 800 to 4000A

The range has been developed to be aesthetically and technically coordinated with other protective devices within the GE industrial product ranges.

The breaker range has a common height and depth and is available in both fixed pattern and drawout versions which can be manually or electrically operated. Designed to offer multiple mains connection options it also comes with a wide range of easy-to-install accessories.

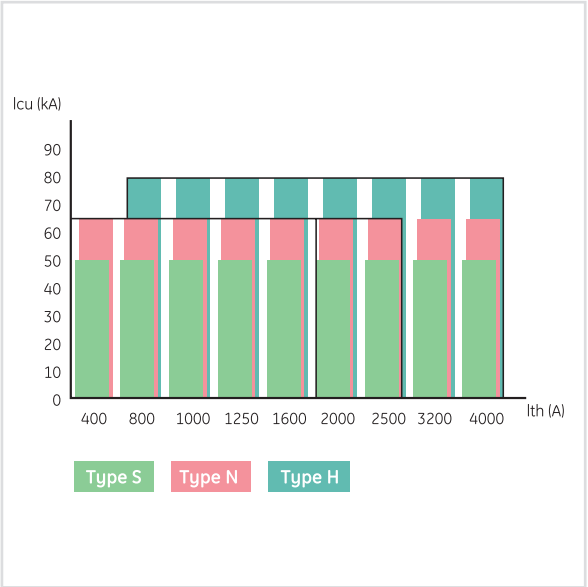
- ✔ **3 performance ranges**
  S - 50kA (Icu)
  N - 65kA (Icu)
  H - 80kA (Icu)
  Ratings shown at 415V AC
- ✔ **2 compact frame sizes**
  Frame size 1 - 400 to 2500A
  Frame size 2 - 800 to 4000A
- ✔ Fixed pattern and withdrawable versions
- ✔ 3 or 4 pole versions
- ✔ Front and rear access connections (horizontal/ vertical)
- ✔ Devices provided with or without protection relay
- ✔ Manual or electrical operation
- ✔ Common height and depth dimensions
- ✔ Built-in safety features e.g. safety shutters
- ✔ Wide range of protection settings offering full selectivity
- ✔ Combinations of earth fault protection
- ✔ Easy-to-install accessories, common to entire range
- ✔ Simple and efficient servicing on site

Specification

M-PACT Plus air circuit breakers comply with the following specifications for Low Voltage Switchgear:
IEC 60947-1
IEC 60947-2
IEC 60947-3
Utilisation category B

Approvals

- ✔ KEMA certification in accordance with IEC 60947-2, VDE 0660 Part 101 and Part 107
- ✔ LOVAG certification in accordance with IEC 947-2, BS EN 60947-2 ASTA, KEMA
- ✔ CCC certification in accordance with GB14048-2
- ✔ CCS certification in accordance with China Certification of shipping



Fixed Circuit Breaker

All M-PACT Plus fixed pattern air circuit breakers incorporate a stored energy mechanism. The spring can be charged either manually or electrically via a motor operator that is automatically activated after the closing operation.
IP43 front panel and door escutcheon seals are standard features with IP20 protected secondary isolating contacts. For enhanced protection, an optional IP54 door panel is also available.

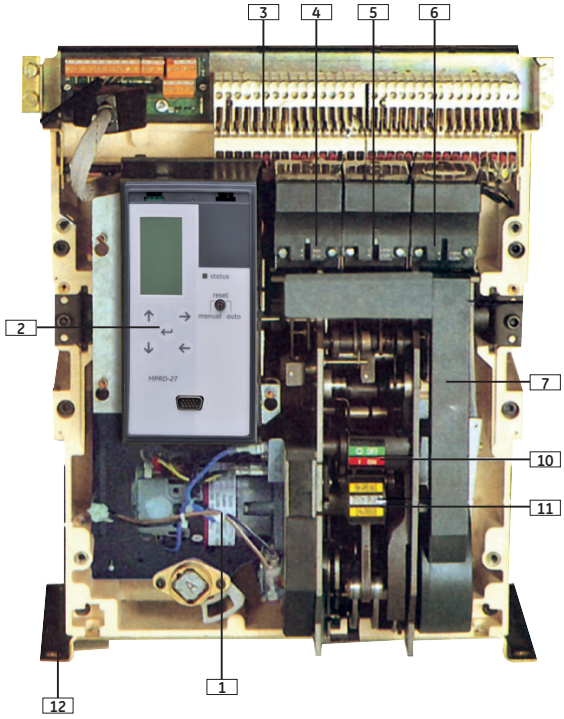
- Trip-free operating mechanism
- Positive 'ON/OFF' contact indication
- Mechanical/electrical anti-pumping device
- Charging spring status indication (optional)
- Ergonomic manual spring charging handle
- Field-mountable range of accessories
- Auxiliary switches 5 NO and 3 NC, 10A 250V (standard)
- Mechanical trip alarm switch (1NO) (optional)
- Padlockable push-button cover
- Mechanical cable interlocking (optional)
- Termination: rear, horizontal or front access (optional)
- Electrical clearances according to IEC 60947-2
- Front access of secondary terminals for simple connection

Installation

Fixed pattern M-PACT Plus can be fastened into any suitable switchboard or cubicle arrangement using four M8 bolts. Clearance is only required above the unit for the removal and inspection of the arc chutes (see dimensional drawings for mounting details and recommended clearance distances). An earthing point is provided on either side of the circuit breaker.

Power Supply

All stated short circuit ratings are certified with incoming supply connection made to either upper or lower terminals..



1 Motorised spring charging unit (optional)
2 MPRO Protection Relay (optional)
3 Secondary contacts
4 Shunt trip (optional)
5 Closing coil (optional)
6 Undervoltage release (optional)
7 Manual charging handle
8 ON/OFF push-buttons
9 Push-button padlockable covers
10 Positive contact indication
11 Charging spring status indication
12 Mounting plate

Withdrawable Circuit Breaker

Pre-mounted into a self-contained 'cassette', this versatile circuit breaker can be inserted or withdrawn via sliding rails using a racking drive mechanism controlled by a racking handle. It provides three set positions:
Disconnected / Test / Connected.
Any attempt to withdraw the unit whilst in service will automatically trip the breaker, either by the racking position safety mechanism or by the insertion of the racking handle. It can be racked to the disconnected position with the cubicle door closed or open.

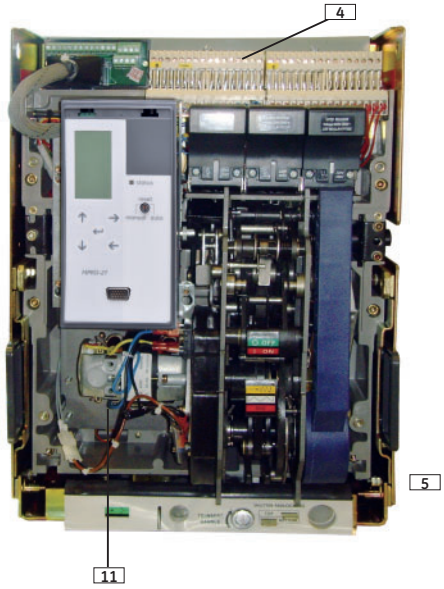
- Insulated, earthed steel shutters to isolate the main contact zone
- Front access padlocking for safety shutters
- Secure padlocking in the "Disconnect" position
- Clearly visible operational position indication
- Carriage position switch (optional)
- Termination: Flat copper palms (standard) with captive M10 fixing nuts
- 'T' terminal adaptors for horizontal/vertical connection (optional)
- Front access connections (optional)
- Automatic disconnect of secondary circuits
- Lifting lugs for ease of removing the circuit breaker from the cassette
- Front access of secondary terminals for simple connection
- Cassette side mounting fixing parts (optional)

Installation

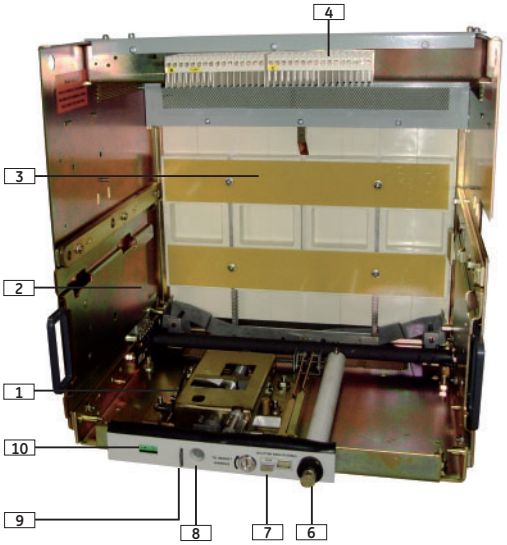
Circuit breakers are delivered pre-mounted in the cassette (standard)
Versatile fixing awrrangements allow mounting onto any switchboard or cubicle using four M8 bolts (see dimensional drawings for mounting details and recommended clearance distances)
Earthing point situated on the right hand side of cassette (front view)

Power Supply

All stated short circuit ratings are certified with incoming supply connection made to either upper or lower terminals.



1 Carriage position switch (optional)
2 Extension rail
3 Earthed steel safety shutter
4 Secondary terminals
5 2 way cable interlock mechanism (optional)
6 Racking handle (storage)
7 Padlocking for safety shutters
8 Insertion hole for racking handle
9 Padlocking in the DISCONNECTED position
10 Operational position indication
11 Key interlock (optional)



Characteristics

Performance data

Characteristics		Symbol	Units										
Rated current (40°C)		In	A	400		630		800			1000		
Endurance (n° of operating cycles)				20000		20000		20000			20000		
Mechanical (with maintenance)				10000		10000		10000			10000		
Mechanical (without maintenance)				5000		5000		5000			5000		
Electrical (at rated current)				690		690		690			690		
Rated service voltage (50/60 Hz)		Ue	V	1000		1000		1000			1000		
Rated insulation voltage		Ui	V	8000		8000		8000			8000		
Rated impulse withstand voltage		Uimp	V	3 & 4		3 & 4		3 & 4			3 & 4		
Number of poles				100%		100%		100%			100%		
Rating of 4th pole													
ACB type				S	N	S	N	S	N	H	S	N	H
Frame size				1	1	1	1	1	1	2	1	1	2
Rated ultimate short-circuit		Icu	kA (rms)										
Breaking capacity	220V			50	65	50	65	50	65	80	50	65	80
	415V			50	65	50	65	50	65	80	50	65	80
	500V			50	65	50	65	50	65	80	50	65	80
	600V			50	50	50	50	50	50	65	50	50	65
	690V			40	40	40	40	40	40	60	40	40	60
Rated service short-circuit		Ics	kA (rms)										
Breaking capacity	220V			50	65	50	65	50	65	80	50	65	80
	415V			50	65	50	65	50	65	80	50	65	80
	500V			50	65	50	65	50	65	80	50	65	80
	600V			50	50	50	50	50	50	65	50	50	65
	690V			40	40	40	40	40	40	60	40	40	60
Rated short time withstand current													
1 second		Icw	kA (rms)	50	65	50	65	50	65	80	50	65	80
3 seconds		Icw	kA (rms)	40	50	40	50	40	50	50	40	50	50
Rated short-circuit	415V		kA (peak)	143	143	143	143	143	143	176	143	143	176
making capacity	500V			143	143	143	143	143	143	176	143	143	176
	600V			143	105	143	105	143	105	143	105	105	143
	690V			84	84	84	84	84	84	105	84	84	105
Power dissipation at In (fixed breaker)		W	Watt	16	11	39	27	63	43	23	106	68	36
Power dissipation at In (withdrawable)		W	Watt	33	22	75	53	127	86	49	211	135	77

Design and specifications are subject to changes without notice.

Selectivity

The following table shows the conditions to satisfy full selectivity between UP-STREAM and DOWN-STREAM devices.
Up-stream: M-PACT Plus
Down-stream: M-PACT Plus
ST delay 50 ms minimum between up-stream and downstream
ACB Multiplication coefficient between LT-ratings ≥ 1,56

Up-stream \ Down-stream	-	400	800	1000	1250	1600	2000	2500	3200	4000
400	-	-	-	-	-	-	-	-	-	-
800	Full	-	-	-	-	-	-	-	-	-
1000	Full	-	-	-	-	-	-	-	-	-
1250	Full	Full	-	-	-	-	-	-	-	-
1600	Full	Full	Full	-	-	-	-	-	-	-
2000	Full	Full	Full	Full	-	-	-	-	-	-
2500	Full	Full	Full	Full	Full	Full	-	-	-	-
3200	Full	Full	Full	Full	Full	Full	Full	-	-	-
4000	Full	Full	Full	Full	Full	Full	2000	Full	-	-

Temperature Deratings

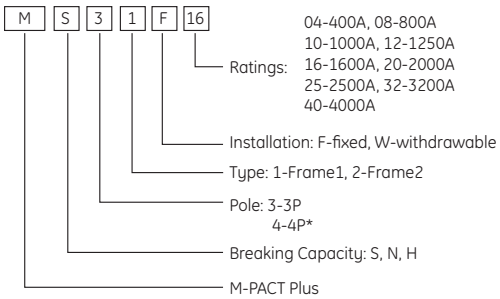
Free Air[1]
The M-PACT Plus ACBs may operate at higher ambient temperatures than 40°C in certain installation conditions. In this case the current rating in Amperes should be reduced as indicated below.

Ambient Temperature	Current Rating (A)							
	800	1000	1250	1600	2000	2500	3200	4000
50°C	800	1000	1250	1600	2000	2450	3200	3727
60°C	800	1000	1250	1445	2000	2232	3200	3367
65°C	800	1000	1250	1364	2000	2092	3019	3175
70°C	800	1000	1250	1280	1970	1970	2831	2978

The figures specified apply to withdrawable ACB's with flat face vertical copper connections
(1) Protection degree IP00.For use in enclosures with interior temperatures of 40° to 70° the relevant IP values can be applied.

1200			1600			2000			2500			3200			4000		
20000			20000			20000			20000			20000			20000		
10000			10000			10000			10000			10000			10000		
5000			5000			5000			5000			5000			5000		
690			690			690			690			690			690		
1000			1000			1000			1000			1000			1000		
8000			8000			8000			8000			8000			8000		
3 & 4			3 & 4			3 & 4			3 & 4			3 & 4			3 & 4		
100%			100%			100%			100%			100%			100%		
S	N	H	S	N	H	S	N	H	S	N	H	S	N	H	S	N	H
1	1	2	1	1	2	1/2	1/2	2	1/2	1/2	2	2	2	2	2	2	2
50	65	80	50	65	80	50	65	80	50	65	80	50	65	80	50	65	80
50	65	80	50	65	80	50	65	80	50	65	80	50	65	80	50	65	80
50	65	80	50	65	80	50	65	80	50	65	80	50	65	80	50	65	80
50	50	65	50	50	65	50	50	65	50	50	65	50	50	65	50	50	65
40	40	60	40	40	60	40	40	60	40	40	60	40	40	60	40	40	60
50	65	80	50	65	80	50	65	80	50	65	80	50	65	80	50	65	80
50	65	80	50	65	80	50	65	80	50	65	80	50	65	80	50	65	80
50	65	80	50	65	80	50	65	80	50	65	80	50	65	80	50	65	80
50	50	65	50	50	65	50	50	65	50	50	65	50	50	65	50	50	65
40	40	60	40	40	60	40	40	60	40	40	60	40	40	60	40	40	60
50	65	80	50	65	80	50	65	80	50	65	80	50	65	80	50	65	80
40	50	50	40	50	50	40	50	50	40	50	50	40	50	50	40	50	50
143	143	176	143	143	176	143	143	176	143	143	176	143	143	176	143	143	176
143	143	176	143	143	176	143	143	176	143	143	176	143	143	176	143	143	176
143	105	143	143	105	143	143	105	143	143	105	143	143	105	143	143	105	143
84	84	105	84	84	105	84	84	105	84	84	105	84	84	105	84	84	105
175	105	60	287	196	98	224	224	163	224	224	163	418	418	418	571	571	571
351	211	128	574	392	209	490	490	347	490	490	347	888	888	888	1224	1224	1224

Catalogue Number Configuration



* Letter 'L' & 'R' only for type selection, not shown on nameplate.

Recommended Minimum Copper Size

In accordance with IEC 60947-2	
Rating (A)	**Copper / phase**
400	2 x 50 x 5
800	2 x 50 x 5
1000	2 x 60 x 5
1250	2 x 100 x 5
1600	2 x 100 x 5
2000	3 x 100 x 5
2500	4 x 100 x 5
3200	4 x 100 x 10
4000	4 x 100 x 10 + 1 x 100 x 5

Dimensions in mm

Frame Size	Rating (A)	Poles	Type	Height[1]	Width	Depth[2]
1	400 to 2500	3	Withdrawable	440	329	422
			Fixed	430	342	352
		4	Withdrawable	440	429	422
			Fixed	430	442	352
2	800 to 4000	3	Withdrawable	440	419	424
			Fixed	430	432	352
		4	Withdrawable	440	549	424
			Fixed	430	562	352

(1) Height is from mounting surface to highest part of the ACB.
(2) Depth is from the cubicle door to the back of terminals.
* 4P, Neutral on the left or right Please specify on selection form,the default option is Neutral on right.

Weights (kg)

		S range		N range		H range	
Fixed pattern	**Frame**	**3 Pole**	**4 Pole**	**3 Pole**	**4 Pole**	**3 Pole**	**4 Pole**
400 to 1600A	1	39	49	39	49	/	/
2000 to 2500A	1	43	54	43	54	/	/
800 to 3200A	2	53	68	53	68	53	68
4000A	2	53	68	53	68	53	68
Withdrawable	**Frame**	**3 Pole**	**4 Pole**	**3 Pole**	**4 Pole**	**3 Pole**	**4 Pole**
400 to 1600A	1	68	79	68	79	/	/
2000 to 2500A	1	74	85	74	85	/	/
800 to 3200A	2	90	109	90	109	90	109
4000A	2	113	128	113	128	113	128

State of the Art Electronic Trip Units

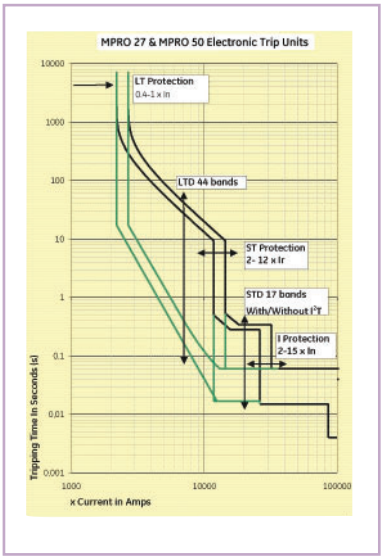
- A line offering a new range of electronic trip units designed to extend and/or upgrade the functionality offered by the existing M-PACT Plus air circuit breaker.
- Two types are available. The simple and effective MPRO-27 and the MPRO-50 offering extended functionality.
- Each has a LCD screen with ammeter and a menu driven setting interface, allowing a simple and accurate setting of all parameters.
- This global line of electronic trip units uses the most recent technology to offer each user an unique combination of selectivity speed and functionality.

Plug'n Play

Electronic trip units are normally supplied factory fitted. However spares are available that can be simply plugged in to breakers installed in the field.(1)

Each trip unit then needs to be adjusted to the required settings. If the installation is not powered up the installed battery pack or the seperately available test kit with Power Pack can be used as alternate power source.

(1) When ordering a spare trip unit the serial number of the installed breaker is needed for the factory settings



MPRO-27 & MPRO-50

The basic MPRO-27 type has been designed to replace the existing MPRO-17 and MPRO-18 plus units offering an extended functionality and a standard ammeter.

The MPRO-50 type replaces the existing MPRO-30 and MPRO-40 designs covering an extended functionality with protection devices as fuse links, overload protection and reduced instantaneous (RELT). Each MPRO-50 comes with a simple to connect 4 wire modbus communciation option.

Main Adjustment Options

LT-LTD protection

Each device has an overload setting range of 0.4 to a times In and offer a choice of 22 time bands designed for use with circuit breakers.
A second set of 22 time bands shaped to match the time current curves of fuses is available on the MPRO-50 type.

ST-STD protection

A timed delayed short circuit protection is installed with a current setting of 2 to 12 times the set LT current value. The short circuit protection time can be set, at one of 17 bands ranging from 90 milliseconds to 1 second.
Optionaly this device can be set to one of three I^2t curves.

I-protection

A switchable and selective instantaneous protection with a setting range of 2 to 15 times the breaker rating that is programmed to wait one half cycle until the downstream device has reacted.

Other protection features

A host of other protection devices is availble including Ground Fault sum and Ground Fault source return (allowing UEF, SEF & REF) and a reduced instantaneous device. The reduced instanataneous device allows the user to conditionally programme the breaker to trip faster and at lower short circuit settings than it would on the standard instantaneuos device.
This RELT device allows the user to reduce the short circuit current level and its time span, thus reducing the amount of electrical energy in the direct vicinity of the breaker.

Trip Unit	*MPRO-27*	*MPRO-50*
Setting Interface		
LCD screen allowing access to 4 distinct menu's	X	X
Touch pad adjustments	X	X
Multilingual	X	X
Adjustable manual or automatic RESET option	X	X
Long Time or Overload Current Protection		
13 current settings Ir 1, 0.95, 0.9. 0,85, 0.8, 0.75, 0.7, 0.65, 0.6, 0.55, 0.5, 0.45 & 0.4 x breaker rating In	X	X
22 thermal protection (C type) time bands available ranging from class 0.5 to 40 (bands at 7.2 x Ir)	X	X
22 I^2t protection (F type {fuse}) time bands available	-	X
Neutral protection 0-50%-63%-100%	X	X
Possibility to switch OFF	-	X
Cooling function and thermal memory	X	X
Short Time Short-Circuit Current Protection		
Setting range from 1.5 to 12 x Ir (LT setting)	X	X
Steps of 0.5 (a total of 22 settings)	X	X
Possibility to switch OFF	-	X
17 time delay settings (STDB) ranging from 30 to 940 milliseconds delay setting, resulting in 90 to 1000 milliseconds	X	X
Clearance times to IEC 40979-1 and IEC 60364		
3 I^2t protection time bands available		
Instantaneous Short-Circuit Current		
• Standard		
Ii setting range from 2 to 15 x breaker rating In	X	X
Steps of 0.5 (a total of 28 settings)	X	X
Possibility to switch OFF	X	X
Selective execution	X	X
Fixed instantaneous or HSIOC protection	X	X
• Reduced		
Ii setting range from 1.5 to 15 x Ie (primary setting)	-	X
Steps of 0.5 (a total of 29 settings)	-	X
Possibility to switch OFF	-	X
Remote and local ON and OFF with position indication signal	-	X
Ground or Earth Fault Protection		
Setting range from 0.1 to 1 x In (breaker rating)(1)	•(1)	•(1)
Steps of 0.01 (a total of 92 settings)	•	•
Possibility to switch OFF	•	•
14 time delay settings (GFDB) ranging from 50 to 840 milliseconds delay setting, resulting in 110 to 900 milliseconds	•	•
Clearance times to IEC 40979-1 and IEC 60364	•	•
3 I^2t protection time bands available	•	•
1 I^4t protection time bands available	•	•
Residual principle (UEF application possible)	•	•
Source ground return principle	-	•
UEF, REF and SEF applications possible	-	•
Combinations of UEF, REF and SEF applications possible	-	•
Other Functions		
Current measurement (L1, L2, L3, N)	X	X
Trip target (trip reason indication)	X	X
Trip info (magnitude / phase)	X	X
Trip counter	X	X
Event logger (trip events)	X	X
General inputs (4 available)	-	X
General relay outputs (4 available)	-	X
Relay based on current level (load shedding)	-	X
Good & bad health indicator	-	X
Watchdog	-	X
Communication 2 way	-	X
Modbus	-	X(1)
24V DC auxiliary power supply	•	•
Test kit with power support function	•	•

(1) 24V auxiliary power supply is required.

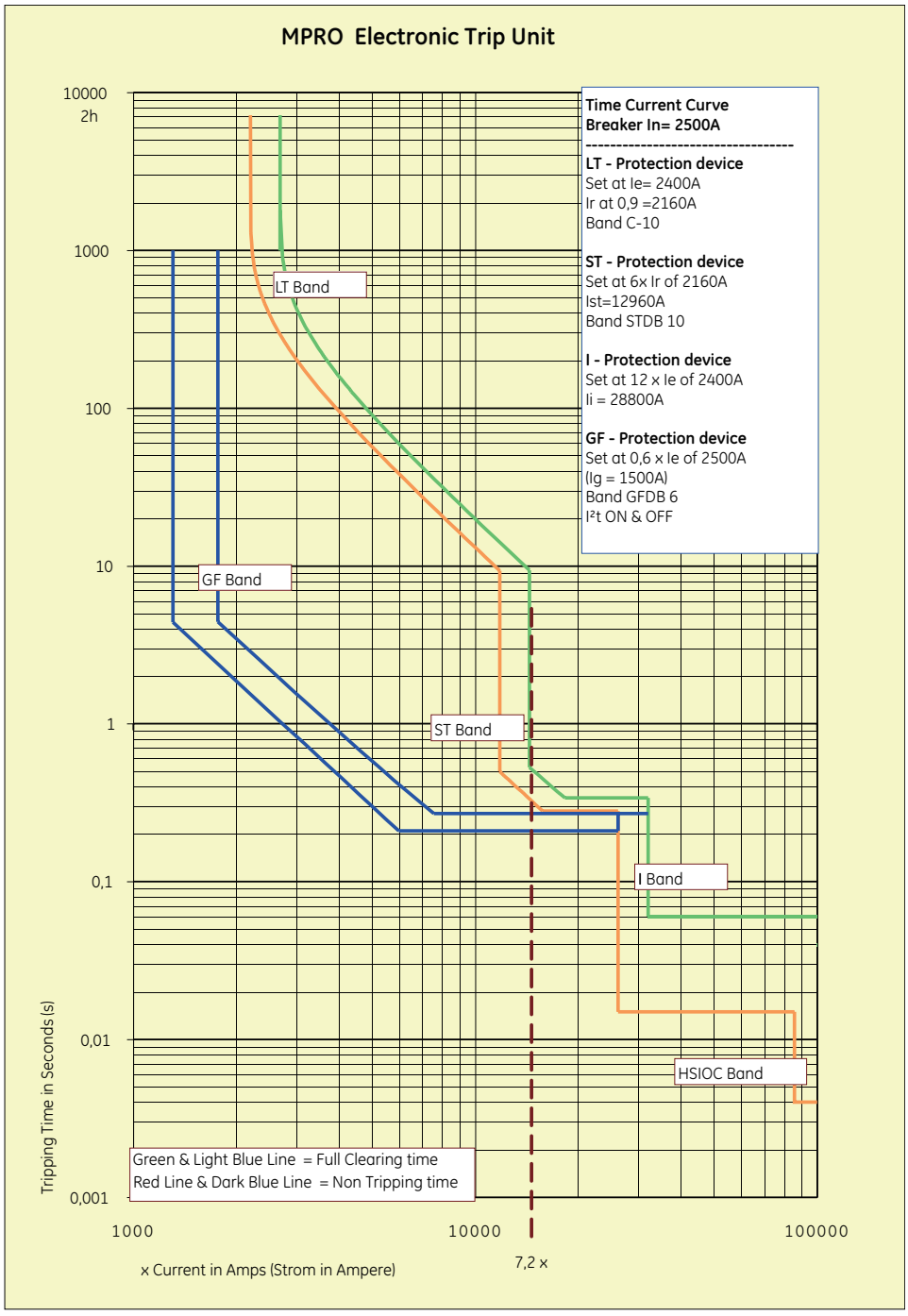
Key
X = Present
• = Optional
- = Not possible

Time Current Curves

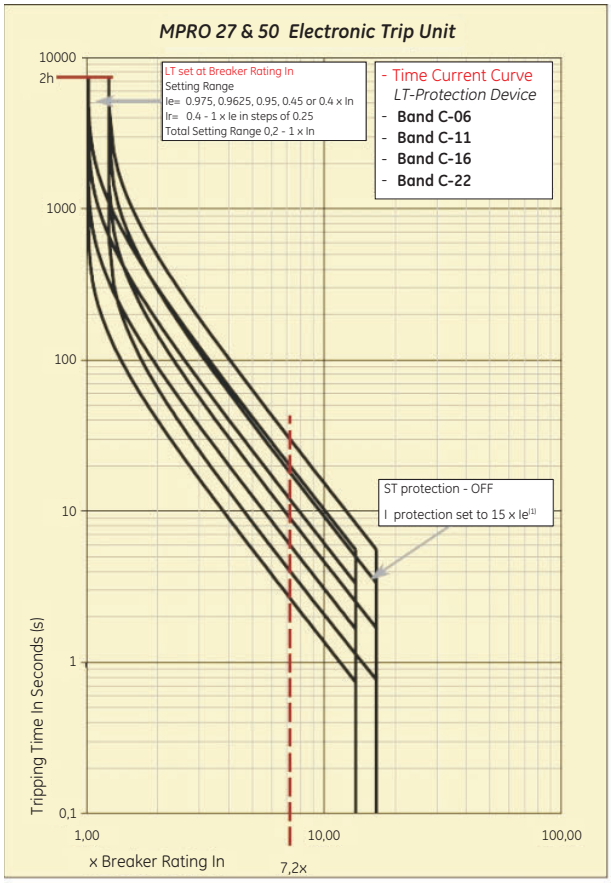
The MPRO electronic trip unit has many sophisticated setting features and an extremely broad setting range. On request we can provide complete

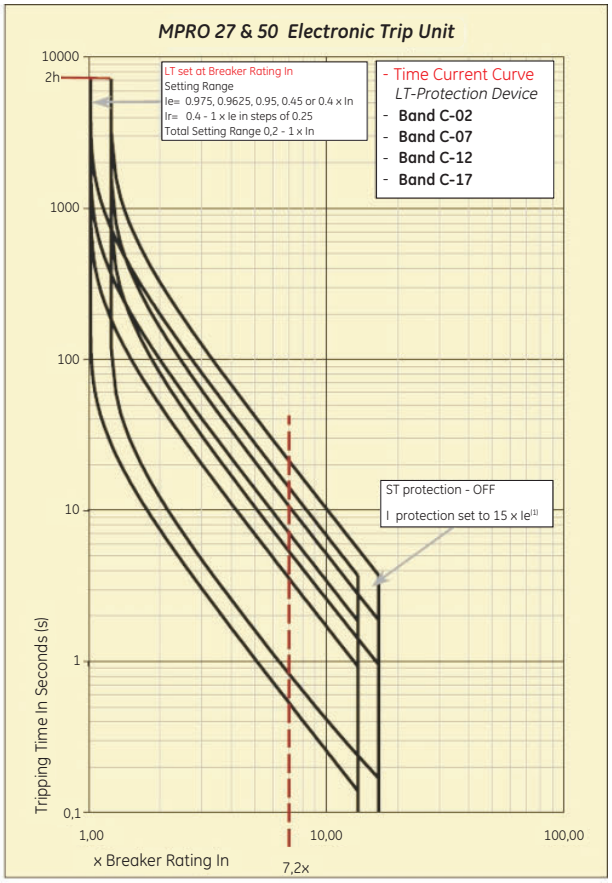
Time Current Curves covering all installed protection devices.

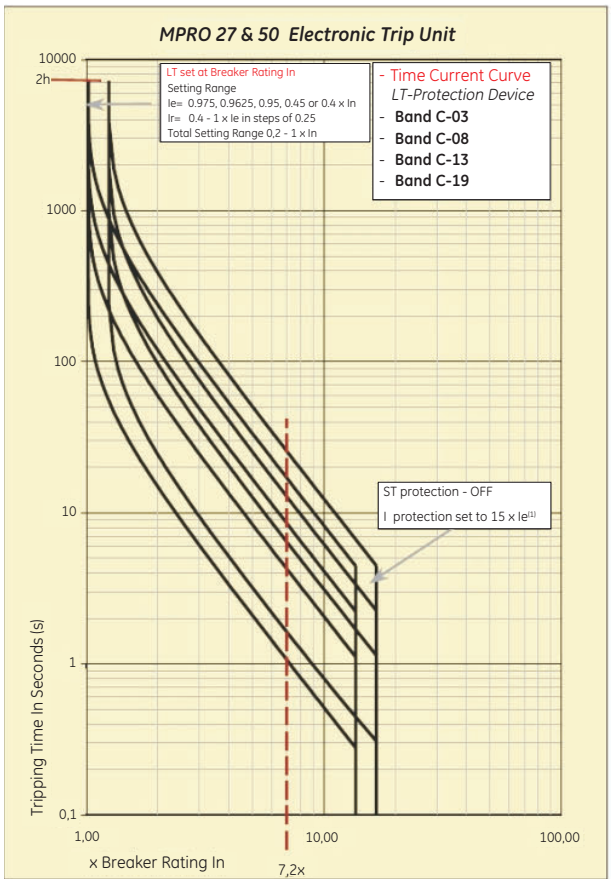
The curves can be produced for any current setting within the range of the installed protection devices, for one or for a combination of two breakers.
Please contact your local GE Sales Office for more information.

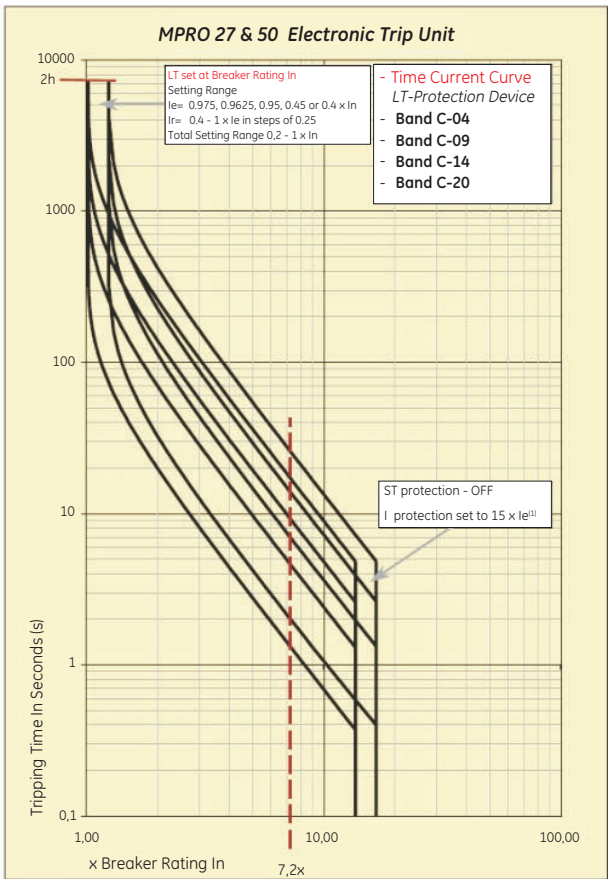


Time Current Curves (cold state) - LT Protection Device

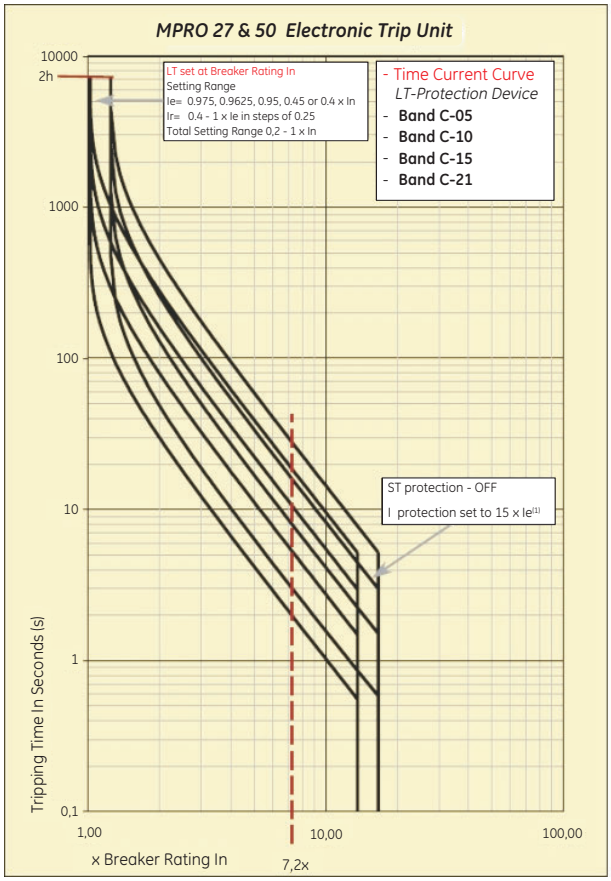


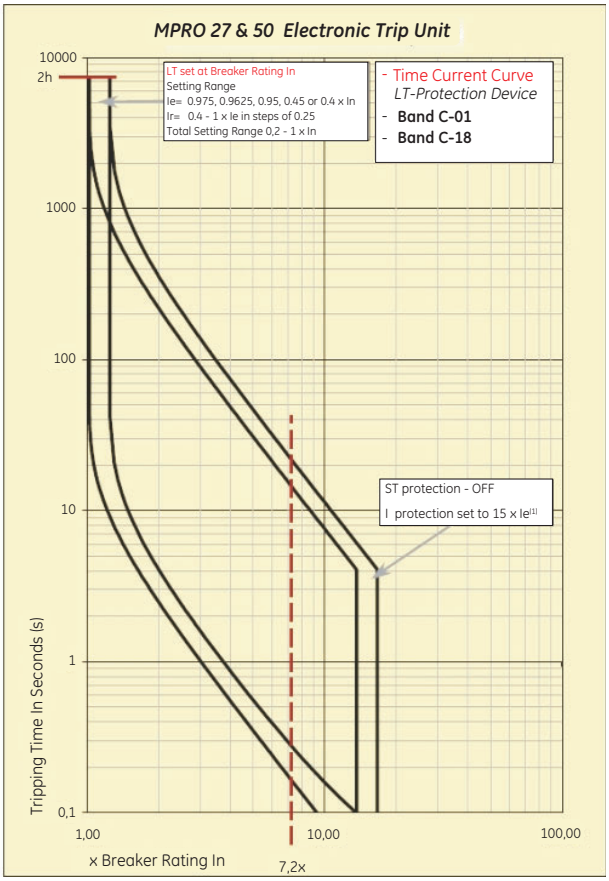


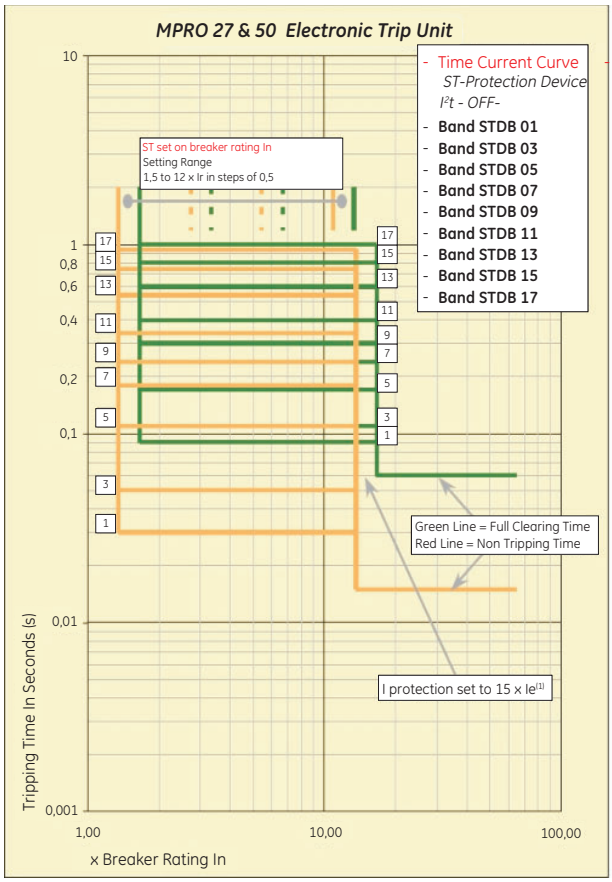


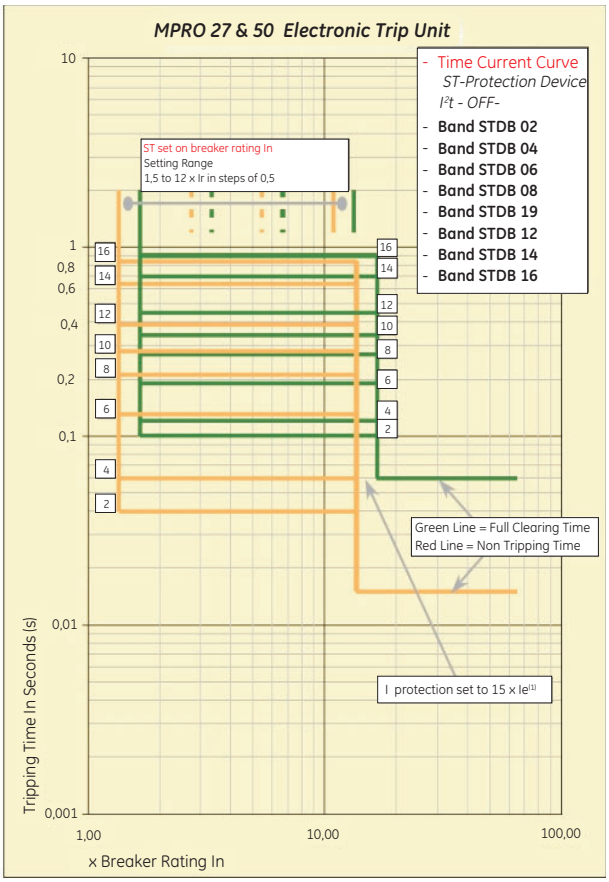


Time Current Curves (cold state) - LT & STDB Protection Device

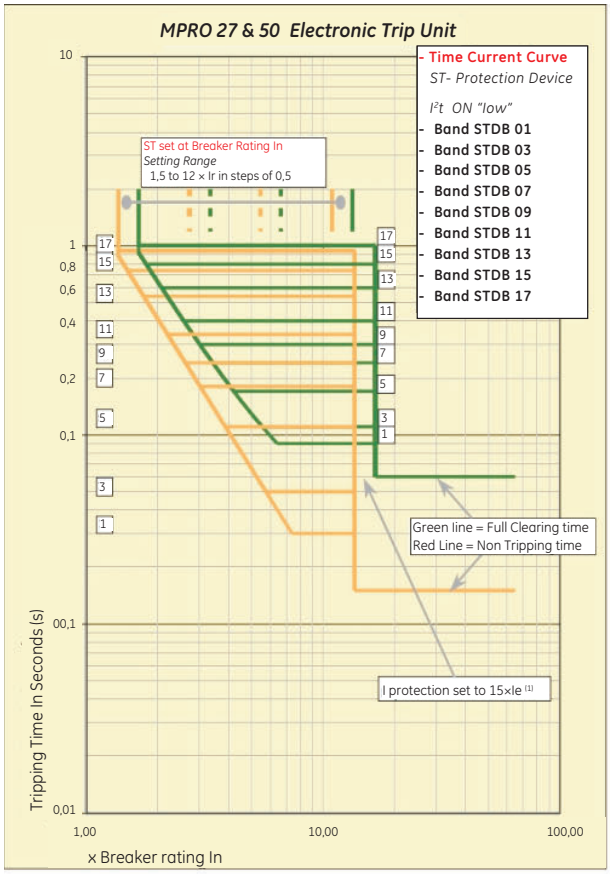

MPRO 27 & 50 Electronic Trip Unit
LT set at Breaker Rating In
Setting Range
Ie= 0.975, 0.9625, 0.95, 0.45 or 0.4 x In
Ir= 0.4 - 1 x Ie in steps of 0.25
Total Setting Range 0,2 - 1 x In
- Time Current Curve
LT-Protection Device
- Band C-05
- Band C-10
- Band C-15
- Band C-21
ST protection - OFF
I protection set to 15 x Ie(1)
Tripping Time In Seconds (s)
x Breaker Rating In
7,2x

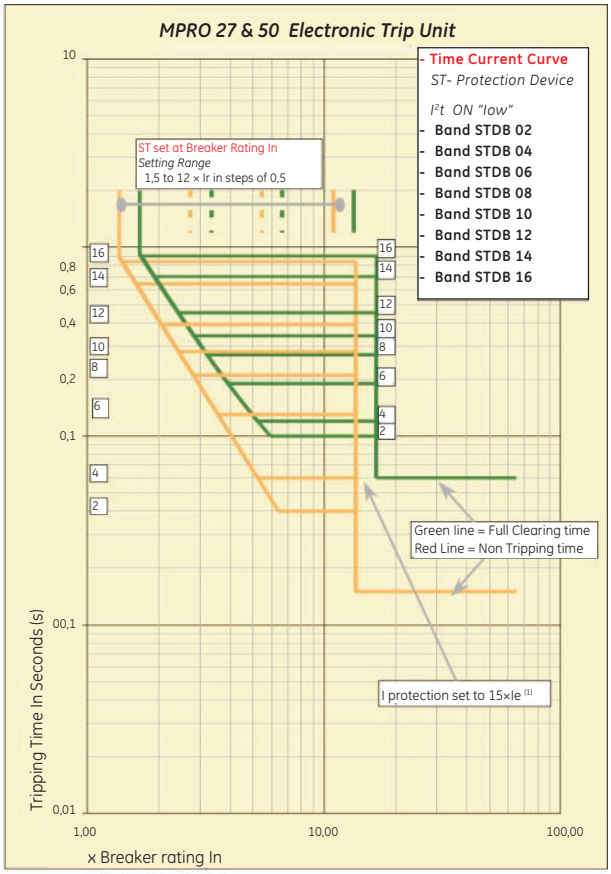

MPRO 27 & 50 Electronic Trip Unit
LT set at Breaker Rating In
Setting Range
Ie= 0.975, 0.9625, 0.95, 0.45 or 0.4 x In
Ir= 0.4 - 1 x Ie in steps of 0.25
Total Setting Range 0,2 - 1 x In
- Time Current Curve
LT-Protection Device
- Band C-01
- Band C-18
ST protection - OFF
I protection set to 15 x Ie(1)
Tripping Time In Seconds (s)
x Breaker Rating In
7,2x

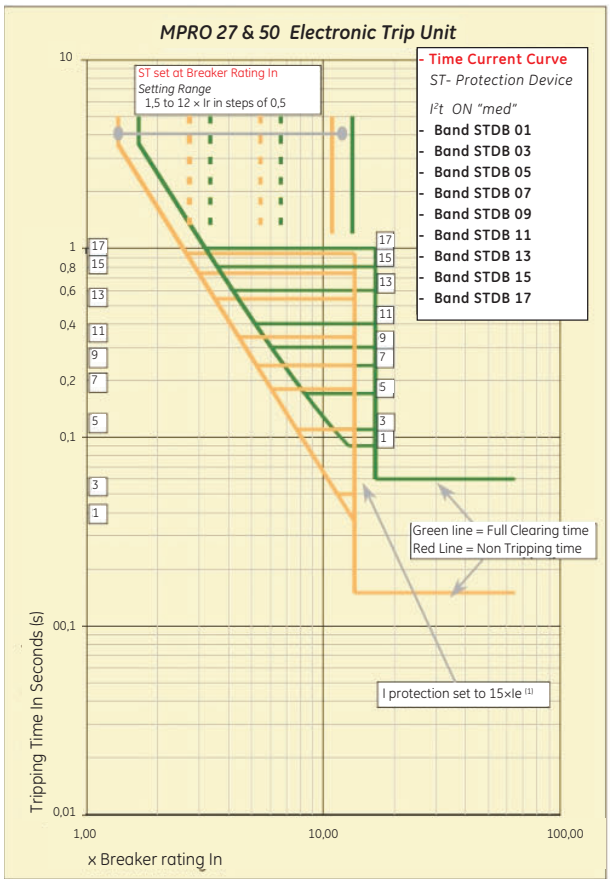

MPRO 27 & 50 Electronic Trip Unit
ST set on breaker rating In
Setting Range
1,5 to 12 x Ir in steps of 0,5
- Time Current Curve
ST-Protection Device
I²t - OFF-
- Band STDB 01
- Band STDB 03
- Band STDB 05
- Band STDB 07
- Band STDB 09
- Band STDB 11
- Band STDB 13
- Band STDB 15
- Band STDB 17
Green Line = Full Clearing Time
Red Line = Non Tripping Time
I protection set to 15 x Ie(1)
Tripping Time In Seconds (s)
x Breaker Rating In

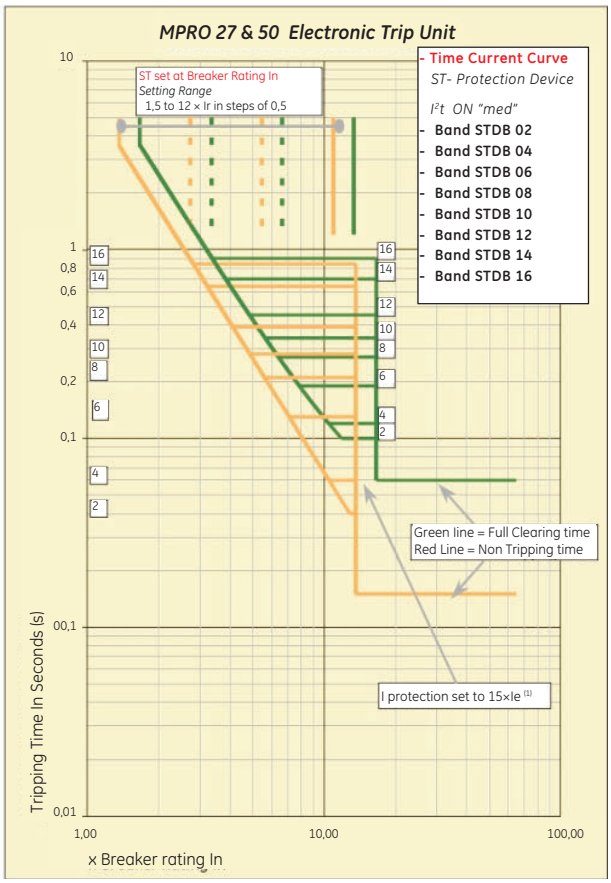

MPRO 27 & 50 Electronic Trip Unit
ST set on breaker rating In
Setting Range
1,5 to 12 x Ir in steps of 0,5
- Time Current Curve
ST-Protection Device
I²t - OFF-
- Band STDB 02
- Band STDB 04
- Band STDB 06
- Band STDB 08
- Band STDB 19
- Band STDB 12
- Band STDB 14
- Band STDB 16
Green Line = Full Clearing Time
Red Line = Non Tripping Time
I protection set to 15 x Ie(1)
Tripping Time In Seconds (s)
x Breaker Rating In

Time Current Curves (cold state) - ST Protection Device

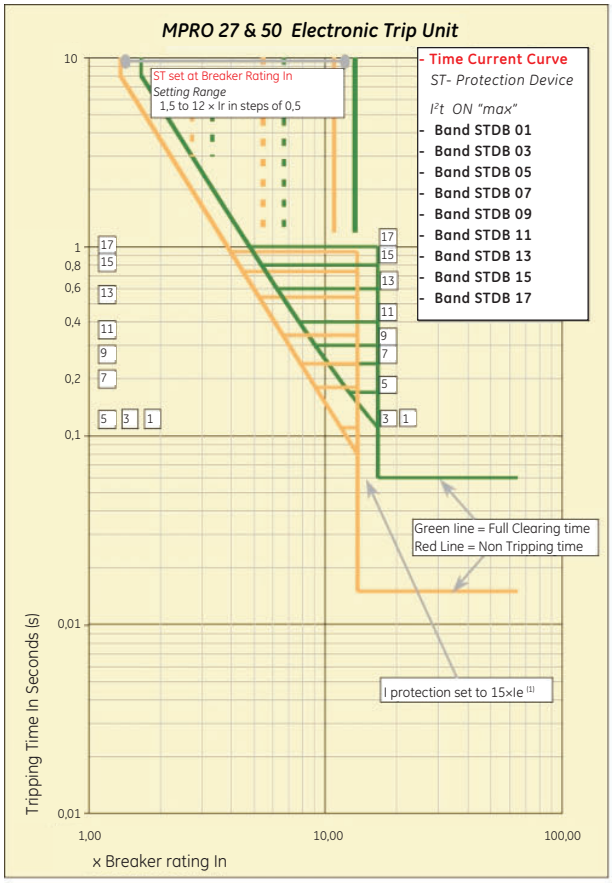


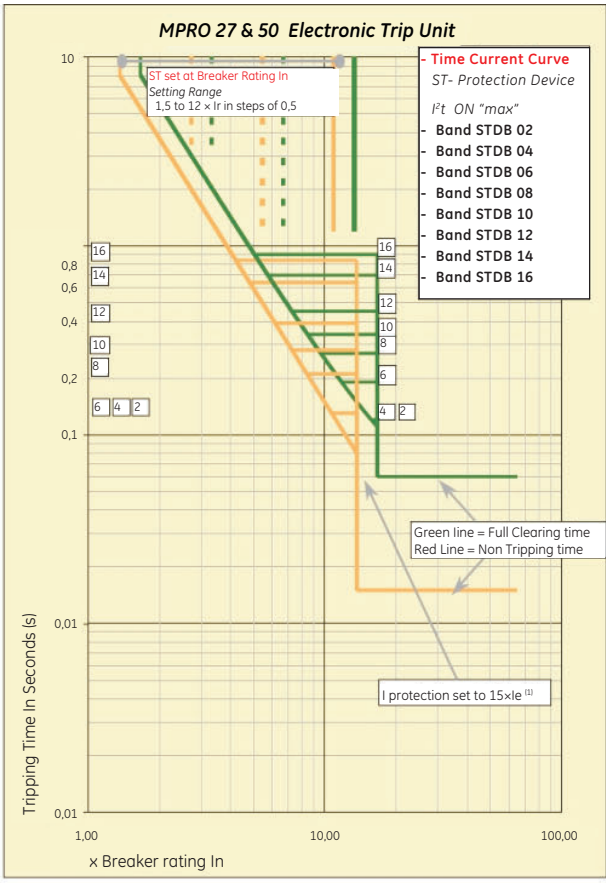


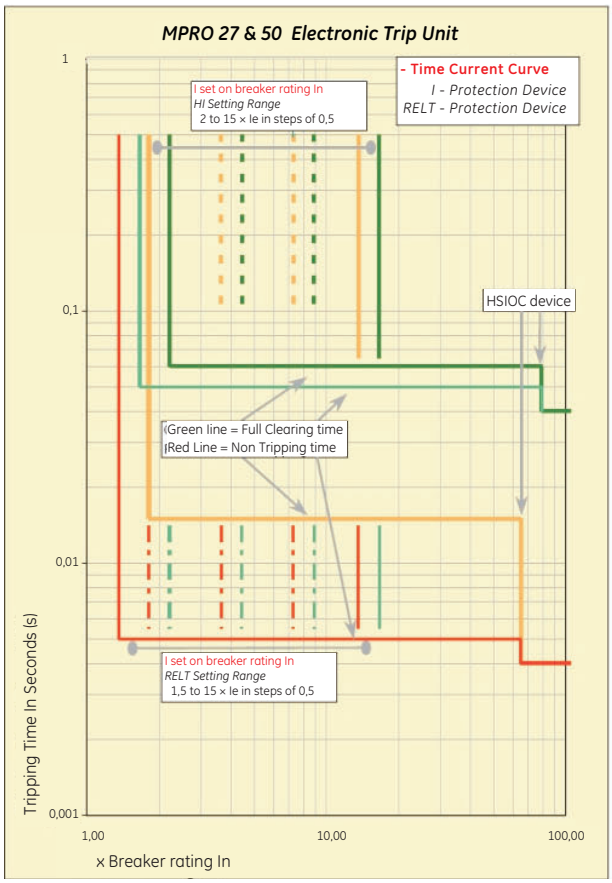


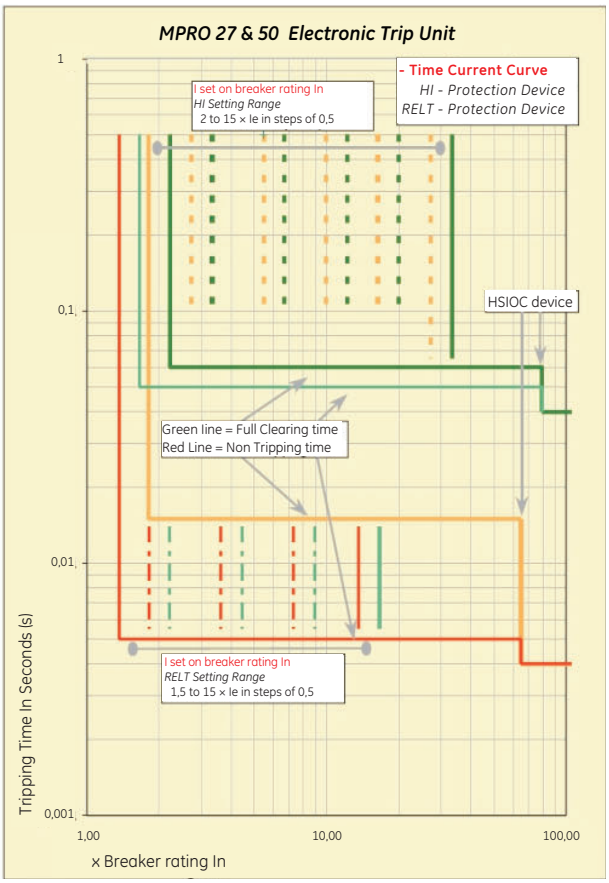


Time Current Curves (cold state) - ST, I and Hi Protection Device

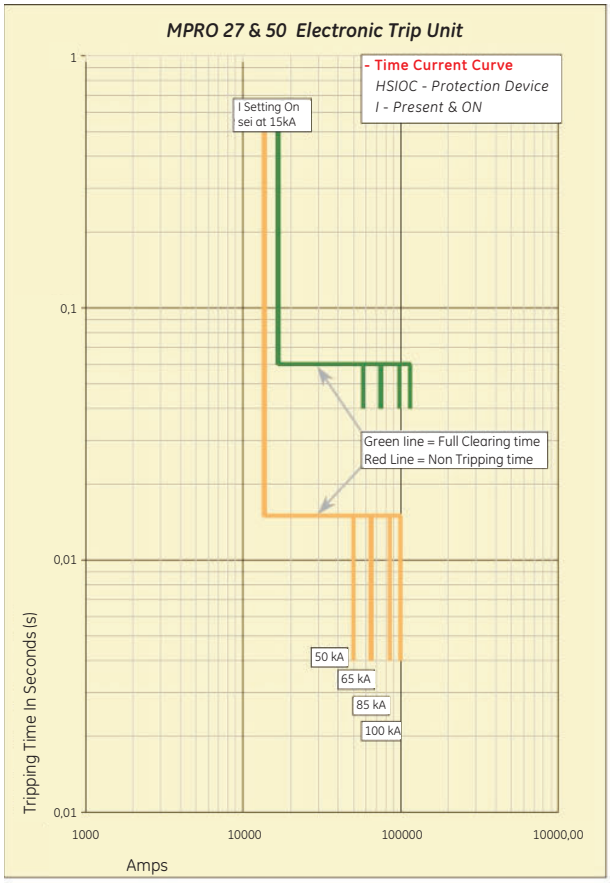

MPRO 27 & 50 Electronic Trip Unit
- Time Current Curve
ST- Protection Device
I²t ON "max"
- Band STDB 01
- Band STDB 03
- Band STDB 05
- Band STDB 07
- Band STDB 09
- Band STDB 11
- Band STDB 13
- Band STDB 15
- Band STDB 17
ST set at Breaker Rating In
Setting Range
1,5 to 12 × Ir in steps of 0,5
Green line = Full Clearing time
Red Line = Non Tripping time
I protection set to 15×Ie (1)
Tripping Time In Seconds (s)
x Breaker rating In

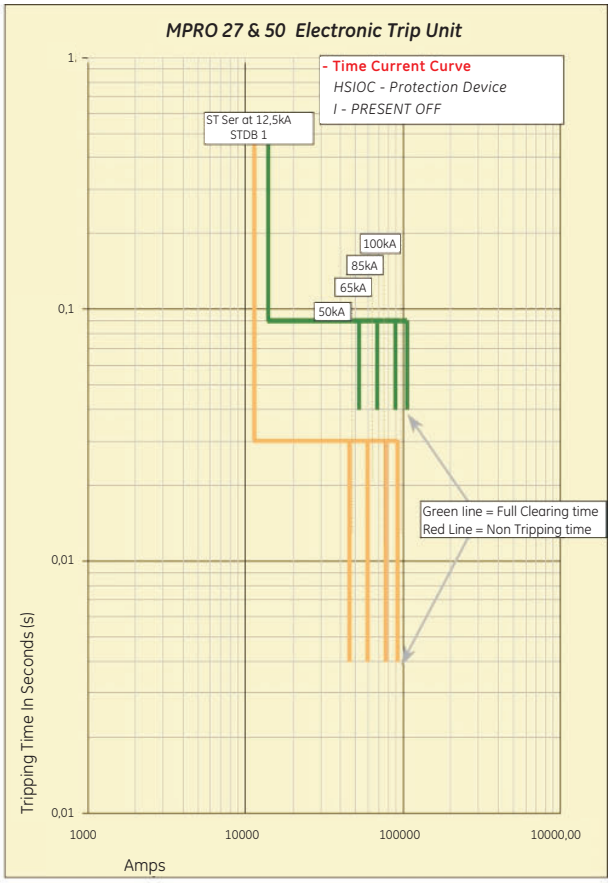

MPRO 27 & 50 Electronic Trip Unit
- Time Current Curve
ST- Protection Device
I²t ON "max"
- Band STDB 02
- Band STDB 04
- Band STDB 06
- Band STDB 08
- Band STDB 10
- Band STDB 12
- Band STDB 14
- Band STDB 16
ST set at Breaker Rating In
Setting Range
1,5 to 12 × Ir in steps of 0,5
Green line = Full Clearing time
Red Line = Non Tripping time
I protection set to 15×Ie (1)
Tripping Time In Seconds (s)
x Breaker rating In

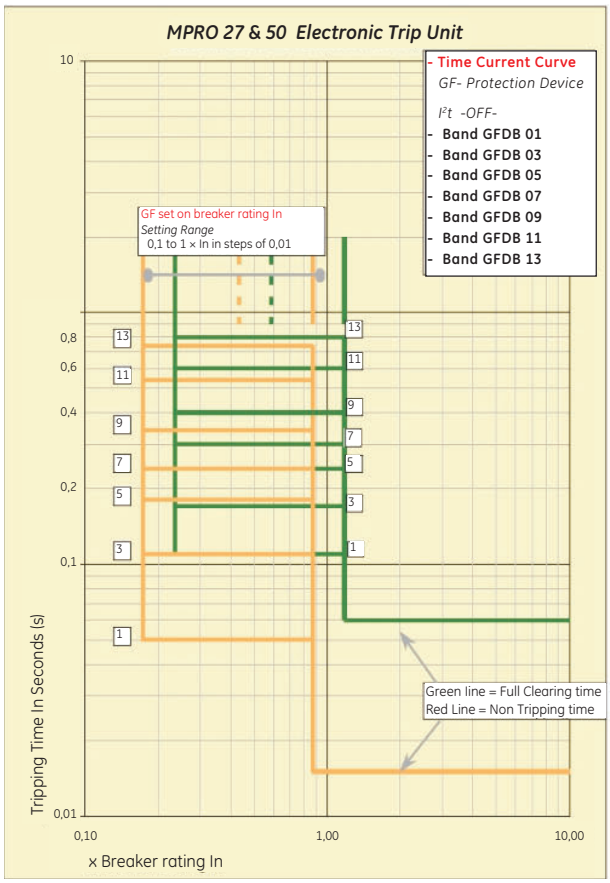

MPRO 27 & 50 Electronic Trip Unit
- Time Current Curve
I - Protection Device
RELT - Protection Device
I set on breaker rating In
HI Setting Range
2 to 15 × Ie in steps of 0,5
HSIOC device
Green line = Full Clearing time
Red Line = Non Tripping time
I set on breaker rating In
RELT Setting Range
1,5 to 15 × Ie in steps of 0,5
Tripping Time In Seconds (s)
x Breaker rating In

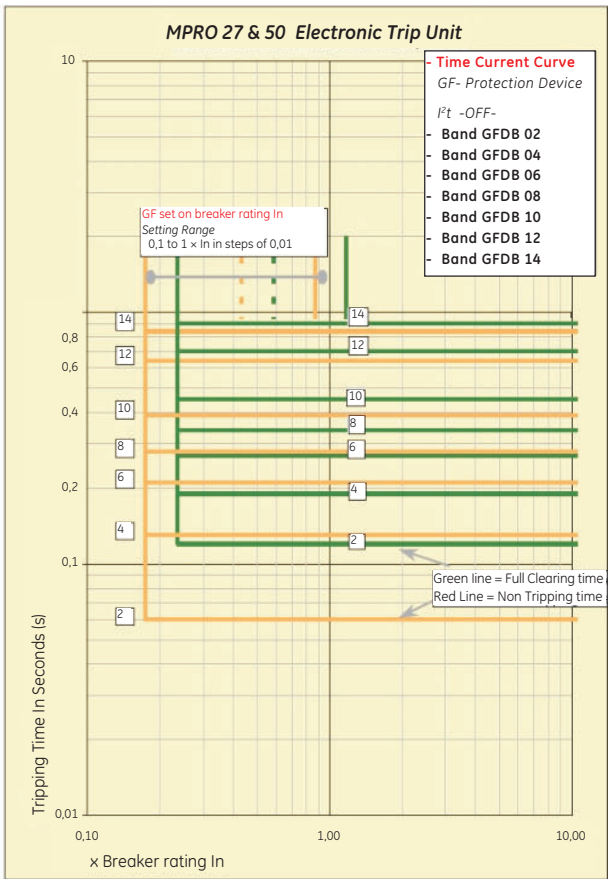

MPRO 27 & 50 Electronic Trip Unit
- Time Current Curve
HI - Protection Device
RELT - Protection Device
I set on breaker rating In
HI Setting Range
2 to 15 × Ie in steps of 0,5
HSIOC device
Green line = Full Clearing time
Red Line = Non Tripping time
I set on breaker rating In
RELT Setting Range
1,5 to 15 × Ie in steps of 0,5
Tripping Time In Seconds (s)
x Breaker rating In

Time Current Curves (cold state) - HSIOC & GF Protection Device

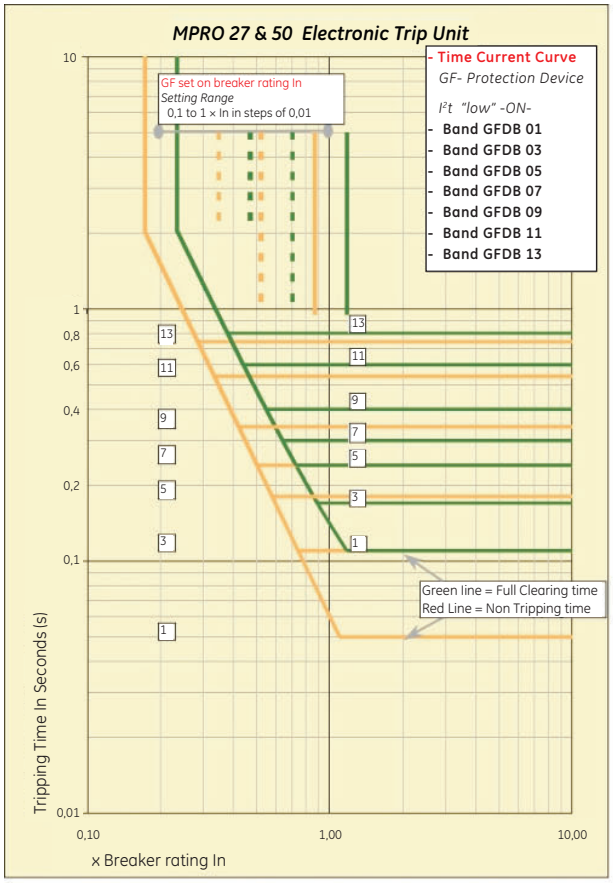


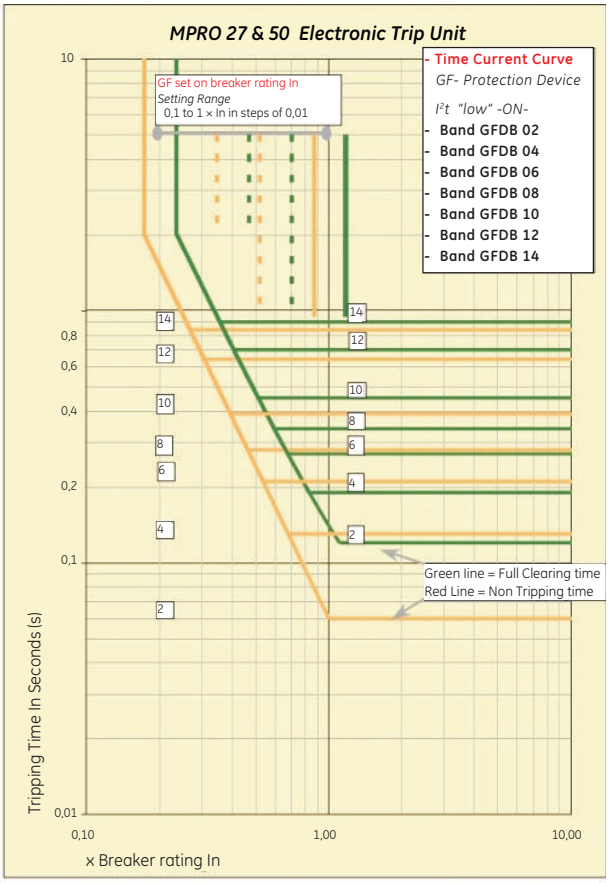


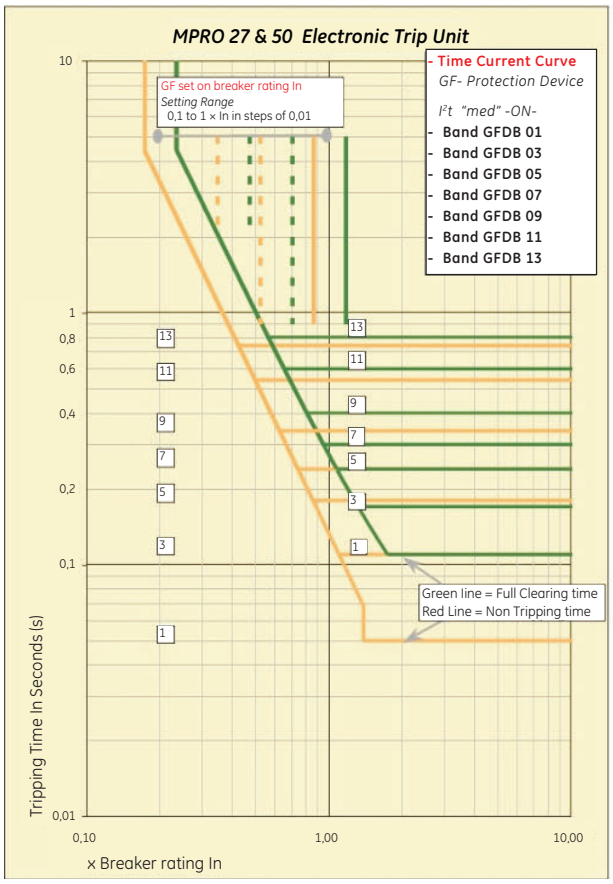


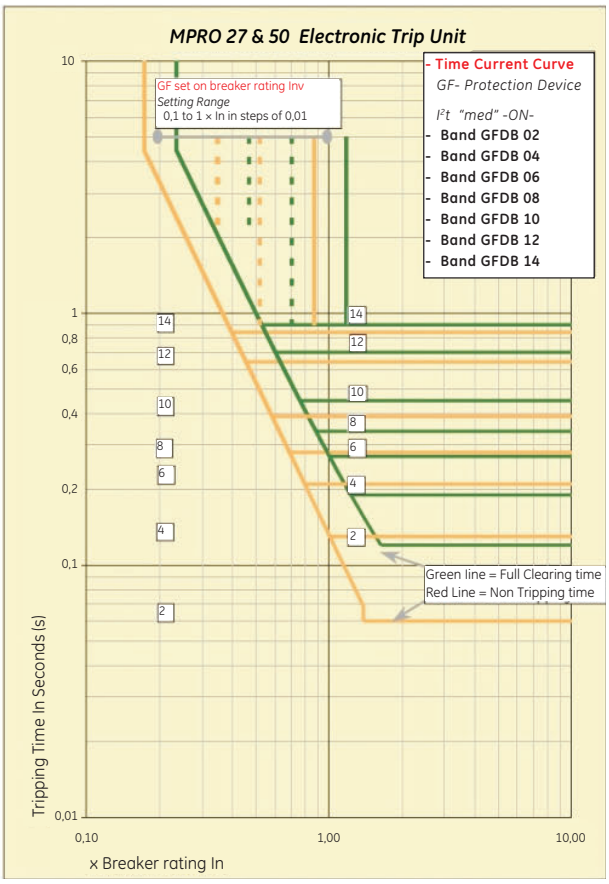


Time Current Curves (cold state) - GF Protection Device

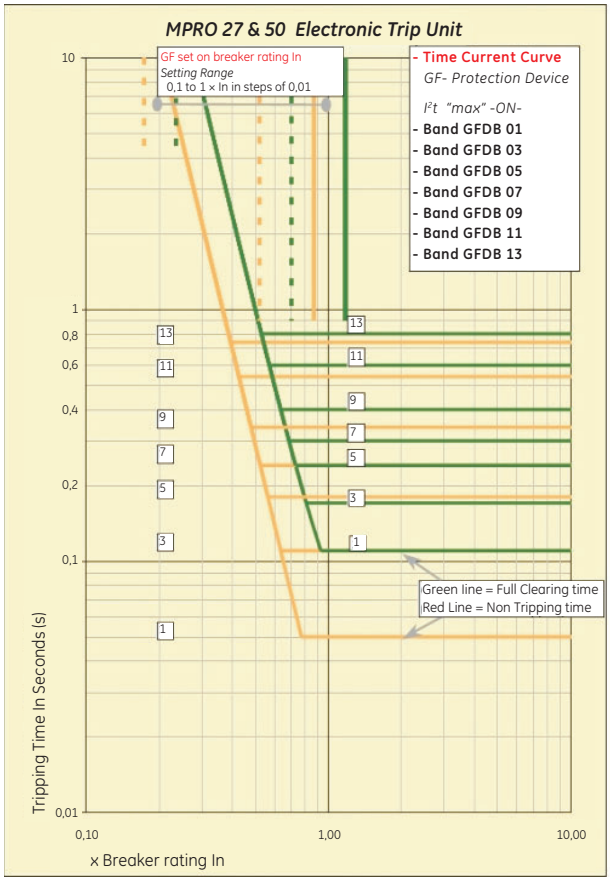


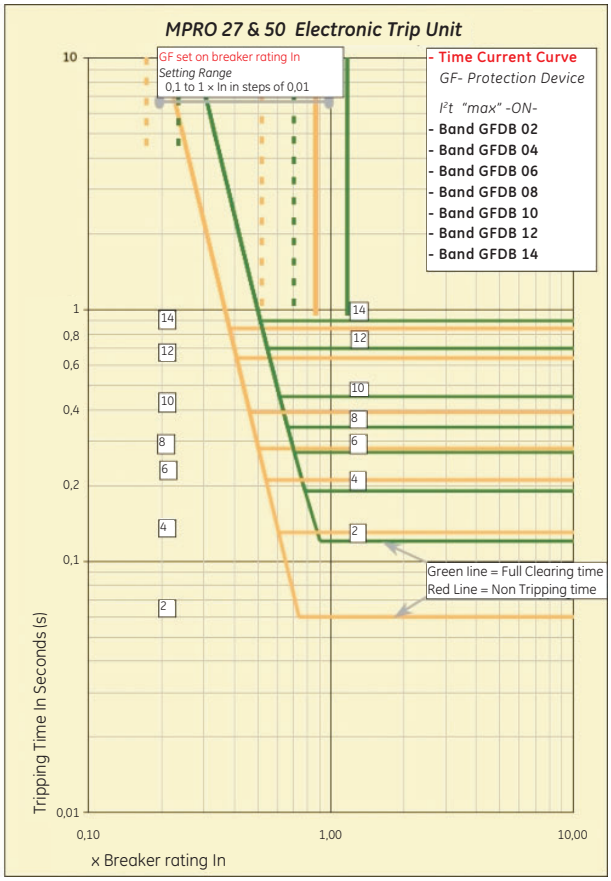






Time Current Curves (cold state) - GF Protection Device

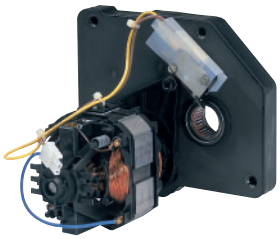




Accessories

A wide range of optional accessories have been developed that are compatible with all M-PACT Plus air circuit breakers, regardless of nominal rating or frame size. Each one incorporates 'easy-fit' design features for quick installation, either in the factory or by the user on site.

Motorised spring charging unit



The unique motor/gearbox unit is specially designed to operate with the full range of M-PACT Plus breakers.
It is easily fitted with just two bolts. In the event of circuit breaker closure, this unit will automatically recharge the spring in readiness for instant reclosure should the need arise. High speed recharging ensures that the springs are fully charged within approximately three seconds following a release. As an optional feature, a "springs charged" contact is available for the motor unit.

Circuit breaker closing coil

The closing coil is an easy-to-fit, clip-on unit, with simple plug-in connectors. This permits either local or remote release of the spring charged closing mechanism by electrical operation.
An additional anti-pumping safety feature also ensures that the electrical closing signal must be released before further closure is attempted, and a cut-off is instigat-ed should a closing signal be maintained.
Because each coil operates within a wide voltage range, the number of individually rated coils required is drastically reduced.

Shunt trip

Energisation, locally or remote, will instantaneously activate the circuit breaker mechanism, ensuring rapid disconnection of the main contacts.
In addition, a series connected auxiliary switch ensures automatic isolation whenever the circuit breaker is open.
Shunt trip releases also have a wide operational voltage range, and they include the same easy-fit, clip-on/plug-in connectors as the closing coil above.

Undervoltage release

Instantaneously releases the circuit breaker trip mechanism should the supply voltage dip below the pre-set value.
Simple to install, these devices have the same easy-fit features as previously described.
Note: This is a 'no-volt/ no-close device. The circuit breaker cannot be closed (manually or electrically) unless the undervoltage release coil is energised.
Time delay undervoltage release Similar to the above, but this electronic device prevents nuisance tripping of the circuit breaker if circuit interruption is not desirable when supply voltage drop is only transient. Fixed time delay 3 sec ±1sec.

Auxiliary trip combination

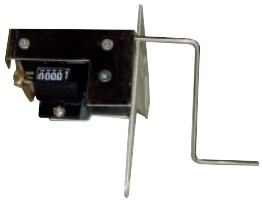
The M-PACT Plus circuit breaker can be equipped with the following auxiliary trips or releases 1 x Shunt trip + 1 x Closing coil + 1 x Undervoltage release or 1 time delay Undervoltage release

Auxiliary switches

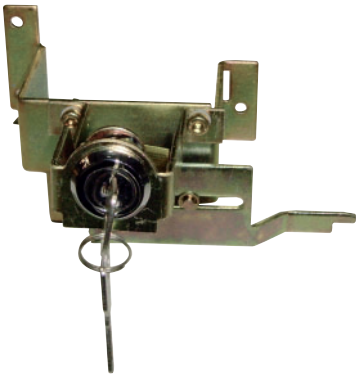
The M-PACT Plus circuit breaker is equipped with 5 NO and 3 NC auxiliary switches as standard. Maximum number of contacts is 8, for alternative configurations please contact for availability.

Mechanical operation counter

Easily fitted, this useful accessory may be specified for use with either manual or motor charged M-PACT Plus circuit breakers.
It is clearly visible through the front panel, and the counter provides an accurate record of the cumulative number of complete breaker closing operations.



Key interlock facility

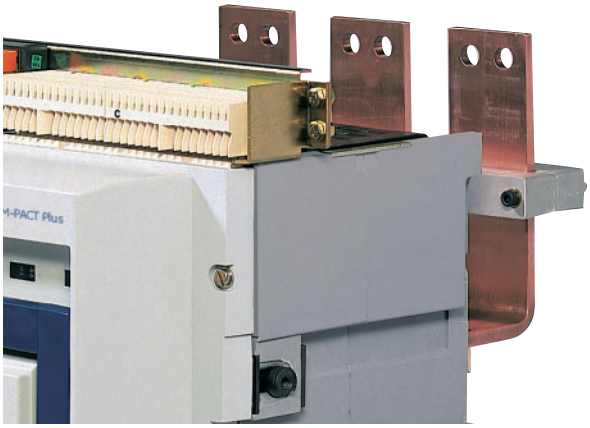


Ready-to-fit interlocking device: Ronis, for installation between separate circuit breakers, available in kit form.
This valuable safeguard ensures that a circuit breaker cannot be closed unless the dedicated key has been inserted and secured within the lock.

Lock and key types
Ronis: Type 1104B lock with standard key, 1/4" turn rotation to trap the key, compulsory spindle size.

Cassette main terminal adaptors

Combinations of rear and front access connections possible for entire range. Tested and approved from 50 to 80kA.

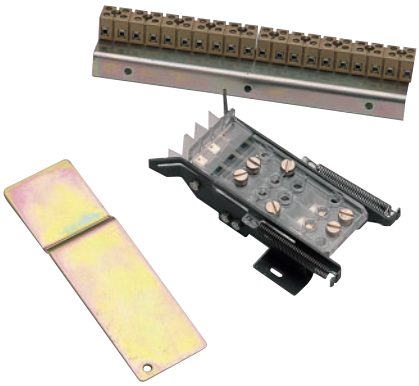


To simplify main busbar or cable termination, M-PACT Plus provides a full range for rear and/or front access connection. Bolt-on adaptor kits can be fitted easily to suit either horizontal or vertical connections.

Cable/busbar earthing device

All M-PACT Plus circuit breakers can be fitted with an earthing device. It has a short circuit fault capacity equal to the Icw rating of the breaker. This permits either the feeder cables or the busbar to be safety held at earthed potential and locked during system maintenance operations.

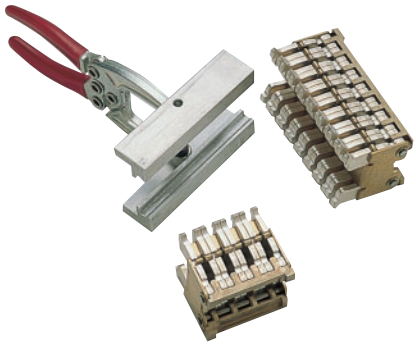
Carriage position switch



Available as an optional device for mounting within the base of the cassette, this switch provides six single pole changeover contacts for local or remote electrical indication of the circuit breaker status: Connected, Test and Disconnected.
The Disconnected position is indicated only when minimum isolating distances between contacts on both the main and auxiliary circuits have been achieved.
This option is in addition to the mechanical indicators which are fitted as standard.
When installed, the carriage switch is IP2X protected and includes wiring to a terminal block located on the left-hand side of the cassette.

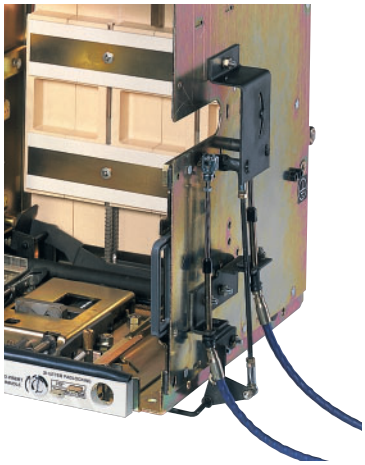
Note: The carriage position switch is an option only suitable for withdrawable circuit breakers.

Cluster contacts



These are the main isolating contacts which are fitted to the rear terminals on the moving portion of the withdrawable unit.
As part of standard inspection and maintenance procedures, cluster contacts have been designed to be easily and quickly removed and replaced using universal cluster pliers.

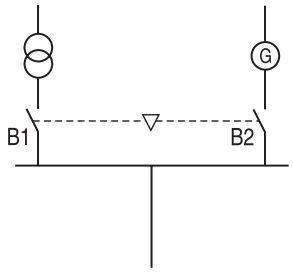
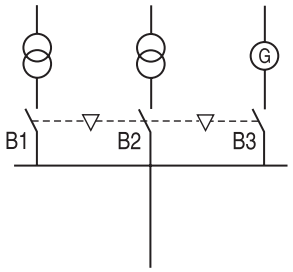
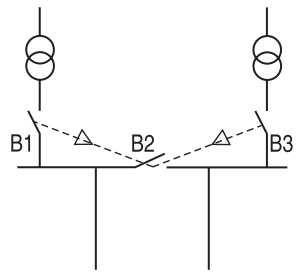
2/3 way cable mechanical interlocks



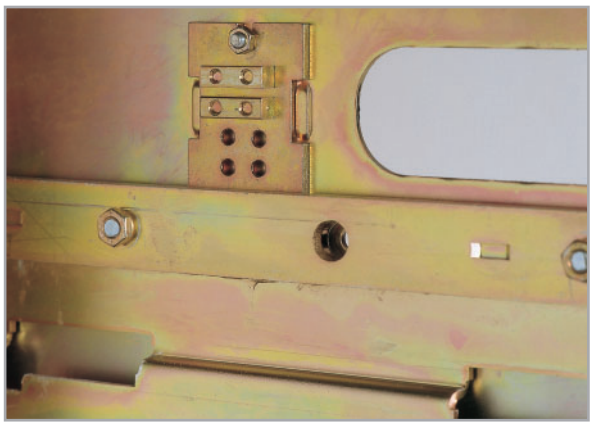
Available for fixed and withdrawable circuit breakers.
These units enable the direct interlocking of M-PACT Plus circuit breakers, either mounted side-by- side or stacked. The interlocking mechanisms are connected by a specially designed cable in '1 from 3' OR '2 from 3' configuration, and any mix of current ratings / pole configurations can be accommodated.
Standard cable lengths available: 1.6, 2.0, 3.0, 4.0 metres.
(Please contact our technical customer service department if longer length is required.)

Interlocks

Mechanical interlocks can be fitted to the following electrical systems and can link 2 or 3 circuit breakers of any rating or number of poles, fixed or withdrawable.

Typical circuit	Interlock configuration	Possible combinations
	**Type A** Interlocking between 2 circuit breakers B1 normal power supply B2 generator (emergency) supply	B1 B2 0 0 I 0 0 I Circuit breaker B1 can only close if B2 is open Circuit breaker B2 can only close if B1 is open
	**Type B** Interlocking between 3 circuit breakers 3 power supplies (generator or transformers) feeding the same busbar but parallel operation is prevented. Available upon request.	B1 B2 B3 0 0 0 I 0 0 0 I 0 0 0 I Only 1 from 3 breakers can be closed
	**Type C** Interlocking between 3 circuit breakers 2 bus sections can be powered by a single transformer (bus coupler closed) or by both transformers (bus coupler open). Available upon request.	B1 B2 B3 0 0 0 I 0 0 0 I 0 0 0 I I 0 I 0 I I I I 0 Any 2 from 3 circuit breakers can be closed Any 1 from 3 circuit breakers can be closed

Circuit breaker insertion interlock



By incorporating this optional security interlock device into a system, it prevents the inadvertent insertion of an incorrectly rated withdrawable circuit breaker into a cassette.

Cassette interlock

Available for withdrawable circuit breakers only, this sophisticated interlock system secures the circuit breaker in the disconnected position by means of a Ronis key.
When the key is removed, the safety shutters are automatically locked in position, thus preventing access to the contacts and also ensuring that the racking mechanism is not operable. For lock and key details refer to key interlock facility section (p. A.21)

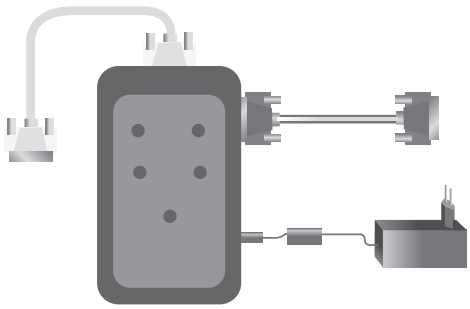
Sealed door panel escutcheon

An optional IP54 complete front door panel is available should a higher degree of protection be necessary.

Circuit breaker handling truck

Specifically designed for use with the M-PACT Plus range, this dedicated handling truck is a useful accessory when faced with the task of inserting or removing the circuit breaker from its panel, or when transporting the unit should it be outside its cassette. Installers will also find it particularly valuable for top-tier mounted circuit breakers.

Plug-in Portable Test Unit (PTU)



Specially designed for reliable testing of the MCR and HSISC protection systems on each phase, by means of tertiary injection. The test unit is also used to prove both overcurrent and earth fault pick-up levels. Can also be employed to test for tripping in order to verify efficient microprocessor operation. The test unit incorporates a set of rechargeable batteries and includes a charger unit as standard.

Auxiliary Power Unit (APU)

Available to be fitted within the circuit breaker cubicle, an APU ensures that MPRO receives independent and continuous power at all times. The APU accepts any input supply voltage within 380VAC, 110V, 220V AC/DC. Maximum input current is 0.5 A. 1m length cable (twisted pair) should be used to connect auxiliary supply and MPRO protection relay.

Accessories Performance Data

Device	Operating Voltage (V) AC	Operating Voltage (V) DC	Operating range	Rating (Amps resistive)
Auxiliary & carriage switch	250		-	10
		125	-	5
		250	-	0.25
Motor operator	220-250	-		AC-50VA DC-50W
	110-130	110-130		
	380-440	48, 60	0.85 to 1.1 times	
		24-30	rated voltage	
Closing coil	220-250	220-250		AC-300VA DC-250W
	110-130	110-130		
	380-440	48	0.85 to 1.1 times	
		24-30	rated voltage	
Shunt trip	220-250	220-250		AC-300VA DC-250W
	110-130	110-130		
	380-440	48	0.70 to 1.1 times	
		24-30	rated voltage	
Instantaneous undervoltage release	380-440	110-130	-	Inrush power consumption 300VA Holding power consumption 20VA
	220-250	30-48	-	
	110-130		-	
Auxiliary power unit	110, 220, 380	110, 220	-	-

Notes

B.2 Specify on the order
B.4 Air circuit breaker - type S - 50kA - Non-automatic
B.6 Air circuit breaker - type S - 50kA - Automatic
B.8 Air circuit breaker - type N - 65kA - Non-automatic
B.10 Air circuit breaker - type N - 65kA - Automatic
B.12 Air circuit breaker - type H - 80kA - Non-automatic
B.14 Air circuit breaker - type H - 80kA - Automatic
B.16 M-PRO trip unit / protection relay
B.18 Electrical accessories
B.19 Mechanical accessories
B.20 Spare parts

Notes

1. Customer Name 2. Project Name 3. Quantity

Specify on the Order

Code M ☐☐☐☐☐☐ - ☐☐☐☐☐☐☐☐ Voltage (Ue) ☐ 415V ☐ 690V

1. Device	☐ TypeS 50kA	☐ TypeN 65kA	☐ TypeH 80kA			
2. Rating	☐ 400A	☐ 630A	☐ 800A	☐ 1000A	☐ 1250A	☐ 1600A
	☐ 2000A	☐ 2500A	☐ 3200A	☐ 4000A		
3. Number of Poles	☐ 3 Pole	☐ 4Pole Left Neutral		☐ 4Pole Right Neutral		
4. System	☐ 3 phase 3 wire	☐ 3 phase 4 wire				
5. Frequency	☐ 50Hz	☐ 60Hz				
6. Type		Connections		Top&Bottom		
	☐ Fix	☐ Front		☐ Horizontal	☐ Vertical	
	☐ Withdrawable	☐ Front		☐ Horizontal	☐ Vertical	
	☐ Moving portion only					
	☐ Cassette only	☐ Front		☐ Horizontal	☐ Vertical	
7. Protection	☐ Non automatic	☐ MPRO 27		☐ MPRO 50L/H	☐ MPRO 27 with GF	
8. MPRO Optional Features	☐ Mechanical Operation Counter			☐ Mechanical Trip Alarm Switch (1NO)		
	☐ Portable Test Unit	Auxillary Power Unit		☐ 110V AC/DC	☐ 220V AC/DC	
		Auxillary Contactor		☐ 5NC+3NC	☐ 4NC+4NC	

9. Control Voltage	MOP	CC	ST	UV	UVTD
24/30V DC	☐	☐	☐		
48V DC	☐	☐	☐	☐	☐
60V DC	☐				
110/130V DC	☐	☐	☐	☐	
110/130V AC	☐	☐	☐	☐	
220/250V DC		☐	☐		
220/250V AC	☐	☐	☐	☐	☐
380/440V AC	☐	☐	☐	☐	☐
	☐	Spring Charge Signal (1NO)			

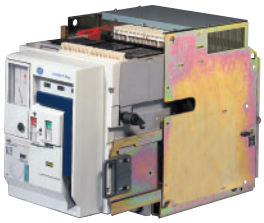
10. Carriage switch	☐ Factory fitted	☐ Loose kit			
11. Interlocks	Door interlock	☐ Left Hand Door Interlock		☐Right Hand Door Interlock	
	☐ Ronis Cassette Key interlock				
	☐ Ronis Breaker Key interlock	☐ Lock A	☐ Lock B	☐ Lock C	☐ Lock D
	☐ Circuit breaker misinsertion interlock				
Cable Interlock	☐ Type A 2 way	☐ Type B 1 from 3 way			
	☐ Type C 2 from 3 way	☐ Type D 1 from 3 way			
	Cable Length required (in centimeters)				
	☐ 160 ☐ 200 ☐ 300				
12. Miscellaneous	☐ IP54 Door panel	☐ ACB Lifting Truck			
13. Special requirements (please Specify any improtant instructions)					

Air circuit breaker - type S - 50kA - Non-automatic

Frame 1 & 2

Basic circuit breaker manually operated, non automatic (switch only, no protection unit option available), 5 NO and 3 NC auxiliary switches.
Withdrawable pattern - basic circuit breaker and cassette with flat copper terminals, rear connected. Fixed Pattern - basic circuit breaker with rear horizontal terminals.

Withdrawable and fixed pattern



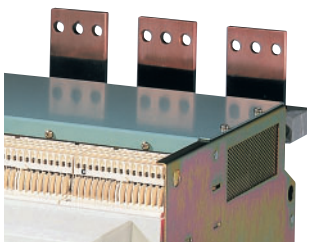
Frame size	Rating (A)	Poles	Position of the neutral	Withdrawable		Fixed Pattern	
				Cat. no.	Ref. No.	Cat. no.	Ref. No.
1	400	3		MS31W04	**405103**	MS31F04	**405133**
		4	Left	MS4L1W04	**405102**	MS4L1F04	**405132**
		4	Right	MS4R1W04	**405316**	MS4R1F04	**405366**
1	630	3		MS31W06	**405105**	MS31F06	**405135**
		4	Left	MS4L1W06	**405104**	MS4L1F06	**405134**
		4	Right	MS4R1W06	**405318**	MS4R1F06	**405368**
1	800	3		MS31W08	**405107**	MS31F08	**405137**
		4	Left	MS4L1W08	**405106**	MS4L1F08	**405136**
		4	Right	MS4R1W08	**405320**	MS4R1F08	**405370**
1	1000	3		MS31W10	**405109**	MS31F10	**405139**
		4	Left	MS4L1W10	**405108**	MS4L1F10	**405138**
		4	Right	MS4R1W10	**405322**	MS4R1F10	**405372**
1	1250	3		MS31W12	**405111**	MS31F12	**405141**
		4	Left	MS4L1W12	**405110**	MS4L1F12	**405140**
		4	Right	MS4R1W12	**405324**	MS4R1F12	**405374**
1	1600	3		MS31W16	**405113**	MS31F16	**405143**
		4	Left	MS4L1W16	**405112**	MS4L1F16	**405142**
		4	Right	MS4R1W16	**405326**	MS4R1F16	**405376**
1	2000	3		MS31W20	**405115**	MS31F20	**405145**
		4	Left	MS4L1W20	**405114**	MS4L1F20	**405144**
		4	Right	MS4R1W20	**405328**	MS4R1F20	**405378**
1	2500	3		MS31W25	**405117**	MS31F25	**405147**
		4	Left	MS4L1W25	**405116**	MS4L1F25	**405146**
		4	Right	MS4R1W25	**405330**	MS4R1F25	**405381**
2	2000	3		MS32W20	**405119**	MS32F20	**405149**
		4	Left	MS4L2W20	**405118**	MS4L2F20	**405148**
		4	Right	MS4R2W20	**405332**	MS4R2F20	**405384**
2	2500	3		MS32W25	**405121**	MS32F25	**405151**
		4	Left	MS4L2W25	**405120**	MS4L2F25	**405150**
		4	Right	MS4R2W25	**405334**	MS4R2F25	**405387**
2	3200	3		MS32W32	**405123**	MS32F32	**405153**
		4	Left	MS4L2W32	**405122**	MS4L2F32	**405152**
		4	Right	MS4R2W32	**405336**	MS4R2F32	**405391**
2	4000	3		MS32W40	**405125**	MS32F40	**405155**
		4	Left	MS4L2W40	**405124**	MS4L2F40	**405154**
		4	Right	MS4R2W40	**405338**	MS4R2F40	**405393**

Rear connections

Frame size	Rating (A)	Poles	Withdrawable or cassettes			Fixed Pattern		
			Cat. no.	Ref. No.	Type	Cat. no.	Ref. No.	Type
1	400 to 1600	3	RT1HOR	**403680**	Horizontal	RT1SVFIX	**405603**	Vertical
		4	RT1HOR	**403680**	Horizontal	RT1SVFIX	**405603**	Vertical
1	400 to 1600	3	RT1VER	**403681**	Vertical	-	-	-
		4	RT1VER	**403681**	Vertical	-	-	-
1	2000 & 2500	3	RT1UNI	**405600**	Universal	RT1SNVFIX	**405609**	Vertical
		4	RT1UNI	**405600**	Universal	RT1SNVFIX	**405609**	Vertical
2	800 to 3200	3	RT2UNI	**405601**	Universal	RT2SNHVFIX	**405621**	Vertical
		4	RT2UNI	**405601**	Universal	RT2SNHVFIX	**405621**	Vertical
2	4000	3	N/A	**N/A**	Vertical	RT2SNHVFIX	**405621**	Vertical
		4	N/A	**N/A**	Vertical	RT2SNHVFIX	**405621**	Vertical

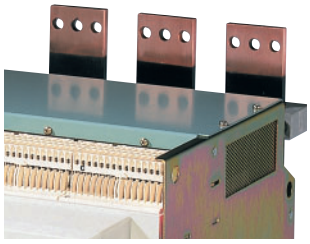
Rear Connections specified in multiples of 3, 4, 6 or 8 dependant on 3 or 4 pole configuration - top and / or bottom connections.

Front access connections



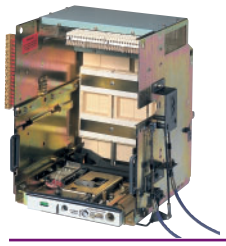
Frame size	Rating (A)	Poles	Withdrawable			
			TOP connections		BOTTOM connections	
			Cat. no.	Ref. No.	Cat. no.	Ref. No.
1	400 to 1600	3	FA31WS16T	**405921**	FA31WS16B	**406021**
		4	FA41WS16T	**405922**	FA41WS16B	**406022**
1	2000 to 2500	3	FA31WS25T	**405923**	FA31WS25B	**406023**
		4	FA41WS25T	**405924**	FA41WS25B	**406024**
2	800 to 3200	3	FA32WS32T	**405925**	FA32WS32B	**406025**
		4	FA42WS32T	**405926**	FA42WS32B	**406026**
2	4000	3	FA32WS40T	**405927**	FA32WS40B	**406027**
		4	FA42WS40T	**405928**	FA42WS40B	**406028**

Front access connections



Frame size	Rating (A)	Poles	Fixed pattern			
			TOP connections		BOTTOM connections	
			Cat. no.	Ref. No.	Cat. no.	Ref. No.
1	400 to 1600	3	FA31FS16T	**405933**	FA31FS16B	**406033**
		4	FA41FS16T	**405934**	FA41FS16B	**406034**
1	2000 to 2500	3	FA31FS25T	**405935**	FA31FS25B	**406035**
		4	FA41FS25T	**405936**	FA41FS25B	**406036**
2	800 to 3200	3	FA32FS32T	**405937**	FA32FS32B	**406037**
		4	FA42FS32T	**405938**	FA42FS32B	**406038**
2	4000	3	FA32FS40T	**405939**	FA32FS40B	**406039**
		4	FA42FS40T	**405940**	FA42FS40B	**406040**

Cassette only



Basic cassette with flat copper terminals rear connected, integral racking handle, safety shutters and lockable safety features.

Frame size	Rating (A)	Poles	Cat. no.	Ref. No.
1	400 to 1600	3	MS31C16	**405341**
		4	MS41C16	**405340**
1	2000 to 2500	3	MS31C25	**405343**
		4	MS41C25	**405342**
2	800 to 3200	3	MS32C32	**405355**
		4	MS42C32	**405354**
2	4000	3	MS32C40	**405365**
		4	MS42C40	**405364**

Moving portion only

Basic circuit breaker manually operated, non automatic (switch only, no protection unit option available), 5 NO and 3 NC auxiliary switches and cluster contacts.

Frame size	Rating (A)	Poles	Position of the neutral	Cat. no.	Ref. No.
1	400	3		MS31M04	**405803**
		4	Left	MS4L1M04	**405804**
		4	Right	MS4R1M04	**405524**
1	630	3		MS31M06	**405805**
		4	Left	MS4L1M06	**405806**
		4	Right	MS4R1M06	**405526**
1	800	3		MS31M08	**405807**
		4	Left	MS4L1M08	**405808**
		4	Right	MS4R1M08	**405528**
1	1000	3		MS31M10	**405809**
		4	Left	MS4L1M10	**405810**
		4	Right	MS4R1M10	**405542**
1	1250	3		MS31M12	**405811**
		4	Left	MS4L1M12	**405812**
		4	Right	MS4R1M12	**405548**
1	1600	3		MS31M16	**405813**
		4	Left	MS4L1M16	**405814**
		4	Right	MS4R1M16	**405582**
1	2000	3		MS31M20	**405815**
		4	Left	MS4L1M20	**405816**
		4	Right	MS4R1M20	**405584**
1	2500	3		MS31M25	**405817**
		4	Left	MS4L1M25	**405818**
		4	Right	MS4R1M25	**405586**
2	2000	3		MS32M20	**405819**
		4	Left	MS4L2M20	**405820**
		4	Right	MS4R2M20	**405588**
2	2500	3		MS32M25	**405821**
		4	Left	MS4L2M25	**405822**
		4	Right	MS4R2M25	**405590**
2	3200	3		MS32M32	**405823**
		4	Left	MS4L2M32	**405824**
		4	Right	MS4R2M32	**405592**
2	4000	3		MS32M40	**405825**
		4	Left	MS4L2M40	**405826**
		4	Right	MS4R2M40	**405594**

Earthing device

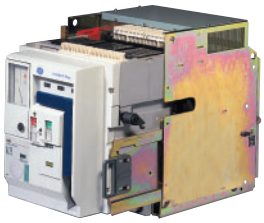
Frame size	Rating (A)	Poles	Cat. no.	Ref. No.
1	400 to 1600	3	EDF13P16	**405661**
		4	EDF14P16	**405660**
1	2000 to 2500	3	EDF13P25	**405663**
		4	EDF14P25	**405662**
2	3200 to 4000	3	EDF23P40	**405665**
		4	EDF24P40	**405664**

Air circuit breaker - type S - 50kA - Automatic

Frame 1 & 2 *(Please select trip unit type in page B.16)*

Basic circuit breaker manually operated, automatic (must be fitted with an MPRO Protection Unit as listed on page B.16), 5 NO and 3 NC auxiliary switches.
Withdrawable pattern - basic circuit breaker and cassette with flat copper terminals, rear connected. Fixed Pattern - basic circuit breaker with rear horizontal terminals.

Withdrawable and fixed pattern



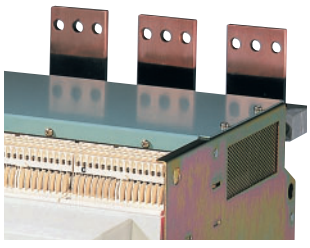
Frame size	Rating (A)	Poles	Position of the neutral	Withdrawable		Fixed Pattern	
				Cat. no.	Ref. No.	Cat. no.	Ref. No.
1	400	3		MS31W04-A	**406177**	MS31F04-A	**405217**
		4	Left	MS4L1W04-A	**406178**	MS4L1F04-A	**405216**
		4	Right	MS4R1W04-A	**406260**	MS4R1F04-A	**405186**
1	630	3		MS31W06-A	**406179**	MS31F06-A	**405219**
		4	Left	MS4L1W06-A	**406180**	MS4L1F06-A	**405218**
		4	Right	MS4R1W06-A	**406262**	MS4R1F06-A	**405278**
1	800	3		MS31W08-A	**406181**	MS31F08-A	**405239**
		4	Left	MS4L1W08-A	**406182**	MS4L1F08-A	**405238**
		4	Right	MS4R1W08-A	**406264**	MS4R1F08-A	**405296**
1	1000	3		MS31W10-A	**406183**	MS31F10-A	**405241**
		4	Left	MS4L1W10-A	**406184**	MS4L1F10-A	**405240**
		4	Right	MS4R1W10-A	**406266**	MS4R1F10-A	**405298**
1	1250	3		MS31W12-A	**406185**	MS31F12-A	**405247**
		4	Left	MS4L1W12-A	**406186**	MS4L1F12-A	**405246**
		4	Right	MS4R1W12-A	**406268**	MS4R1F12-A	**405390**
1	1600	3		MS31W16-A	**406187**	MS31F16-A	**405249**
		4	Left	MS4L1W16-A	**406188**	MS4L1F16-A	**405248**
		4	Right	MS4R1W16-A	**406270**	MS4R1F16-A	**405392**
1	2000	3		MS31W20-A	**406189**	MS31F20-A	**405251**
		4	Left	MS4L1W20-A	**406190**	MS4L1F20-A	**405250**
		4	Right	MS4R1W20-A	**406272**	MS4R1F20-A	**405404**
1	2500	3		MS31W25-A	**406191**	MS31F25-A	**405253**
		4	Left	MS4L1W25-A	**406192**	MS4L1F25-A	**405252**
		4	Right	MS4R1W25-A	**406274**	MS4R1F25-A	**405682**
2	2000	3		MS32W20-A	**406193**	MS32F20-A	**405255**
		4	Left	MS4L2W20-A	**406194**	MS4L2F20-A	**405254**
		4	Right	MS4R2W20-A	**406276**	MS4R2F20-A	**405712**
2	2500	3		MS32W25-A	**406195**	MS32F25-A	**405269**
		4	Left	MS4L2W25-A	**406196**	MS4L2F25-A	**405268**
		4	Right	MS4R2W25-A	**406278**	MS4R2F25-A	**405722**
2	3200	3		MS32W32-A	**406197**	MS32F32-A	**405271**
		4	Left	MS4L2W32-A	**406198**	MS4L2F32-A	**405270**
		4	Right	MS4R2W32-A	**406280**	MS4R2F32-A	**405748**
2	4000	3		MS32W40-A	**406199**	MS32F40-A	**405277**
		4	Left	MS4L2W40-A	**406200**	MS4L2F40-A	**405276**
		4	Right	MS4R2W40-A	**406282**	MS4R2F40-A	**405786**

Rear connections

Frame size	Rating (A)	Poles	Withdrawable or cassettes			Fixed Pattern		
			Cat. no.	Ref. No.	Type	Cat. no.	Ref. No.	Type
1	400 to 1600	3	RT1HOR	**403680**	Horizontal	RT1SVFIX	**405603**	Vertical
		4	RT1HOR	**403680**	Horizontal	RT1SVFIX	**405603**	Vertical
1	400 to 1600	3	RT1VER	**403681**	Vertical	-	**-**	-
		4	RT1VER	**403681**	Vertical	-	**-**	-
1	2000 & 2500	3	RT1UNI	**405600**	Universal	RT1SNVFIX	**405609**	Vertical
		4	RT1UNI	**405600**	Universal	RT1SNVFIX	**405609**	Vertical
2	800 to 3200	3	RT2UNI	**405601**	Universal	RT2SNHVFIX	**405621**	Vertical
		4	RT2UNI	**405601**	Universal	RT2SNHVFIX	**405621**	Vertical
2	4000	3	N/A	**N/A**	Vertical	RT2SNHVFIX	**405621**	Vertical
		4	N/A	**N/A**	Vertical	RT2SNHVFIX	**405621**	Vertical

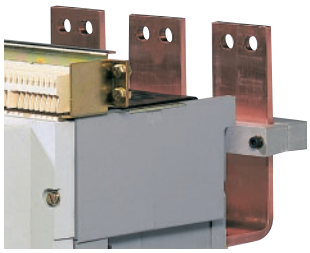
Rear Connections specified in multiples of 3, 4, 6 or 8 dependant on 3 or 4 pole configuration - top and / or bottom connections.

Front access connections



Frame size	Rating (A)	Poles	Withdrawable			
			TOP connections		BOTTOM connections	
			Cat. no.	Ref. No.	Cat. no.	Ref. No.
1	400 to 1600	3	FA31WS16T	**405921**	FA31WS16B	**406021**
		4	FA41WS16T	**405922**	FA41WS16B	**406022**
1	2000 to 2500	3	FA31WS25T	**405923**	FA31WS25B	**406023**
		4	FA41WS25T	**405924**	FA41WS25B	**406024**
2	800 to 3200	3	FA32WS32T	**405925**	FA32WS32B	**406025**
		4	FA42WS32T	**405926**	FA42WS32B	**406026**
2	4000	3	FA32WS40T	**405927**	FA32WS40B	**406027**
		4	FA42WS40T	**405928**	FA42WS40B	**406028**

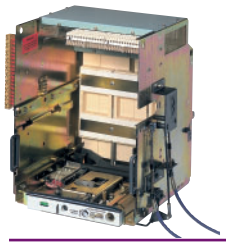
Front access connections



Frame size	Rating (A)	Poles	Fixed pattern			
			TOP connections		BOTTOM connections	
			Cat. no.	Ref. No.	Cat. no.	Ref. No.
1	400 to 1600	3	FA31FS16T	**405933**	FA31FS16B	**406033**
		4	FA41FS16T	**405934**	FA41FS16B	**406034**
1	2000 to 2500	3	FA31FS25T	**405935**	FA31FS25B	**406035**
		4	FA41FS25T	**405936**	FA41FS25B	**406036**
2	800 to 3200	3	FA32FS32T	**405937**	FA32FS32B	**406037**
		4	FA42FS32T	**405938**	FA42FS32B	**406038**
2	4000	3	FA32FS40T	**405939**	FA32FS40B	**406039**
		4	FA42FS40T	**405940**	FA42FS40B	**406040**

Front access connections

Basic cassette with flat copper terminals rear connected, integral racking handle, safety shutters and lockable safety features.



Frame size	Rating (A)	Poles	Cat. no.	Ref. No.
1	400 to 1600	3	MS31C16	**405341**
		4	MS41C16	**405340**
1	2000 to 2500	3	MS31C25	**405343**
		4	MS41C25	**405342**
2	800 to 3200	3	MS32C32	**405355**
		4	MS42C32	**405354**
2	4000	3	MS32C40	**405365**
		4	MS42C40	**405364**

Moving portion only

Basic circuit breaker manually operated, automatic (must be fitted with an MPRO Protection Unit as listed on page B.16), 5 NO and 3 NC auxiliary switches and cluster contacts.

Frame size	Rating (A)	Poles	Position of the neutral	Cat. no.	Ref. No.
1	400	3		MS31M04-A	**405905**
		4	Left	MS4L1M04-A	**405906**
		4	Right	MS4R1M04-A	**406162**
1	630	3		MS31M06-A	**405907**
		4	Left	MS4L1M06-A	**405908**
		4	Right	MS4R1M06-A	**406164**
1	800	3		MS31M08-A	**405909**
		4	Left	MS4L1M08-A	**405910**
		4	Right	MS4R1M08-A	**406166**
1	1000	3		MS31M10-A	**405911**
		4	Left	MS4L1M10-A	**405912**
		4	Right	MS4R1M10-A	**406168**
1	1250	3		MS31M12-A	**405913**
		4	Left	MS4L1M12-A	**405914**
		4	Right	MS4R1M12-A	**406170**
1	1600	3		MS31M16-A	**405915**
		4	Left	MS4L1M16-A	**405916**
		4	Right	MS4R1M16-A	**406172**
1	2000	3		MS31M20-A	**405995**
		4	Left	MS4L1M20-A	**405918**
		4	Right	MS4R1M20-A	**406174**
1	2500	3		MS31M25-A	**405919**
		4	Left	MS4L1M25-A	**405920**
		4	Right	MS4R1M25-A	**406176**
2	2000	3		MS32M20-A	**405929**
		4	Left	MS4L2M20-A	**405930**
		4	Right	MS4R2M20-A	**406208**
2	2500	3		MS32M25-A	**405931**
		4	Left	MS4L2M25-A	**405932**
		4	Right	MS4R2M25-A	**406214**
2	3200	3		MS32M32-A	**405941**
		4	Left	MS4L2M32-A	**405942**
		4	Right	MS4R2M32-A	**406216**
2	4000	3		MS32M40-A	**405943**
		4	Left	MS4L2M40-A	**405944**
		4	Right	MS4R2M40-A	**406218**

Earthing device

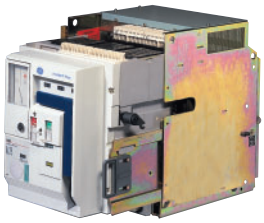
Frame size	Rating (A)	Poles	Cat. no.	Ref. No.
1	400 to 1600	3	EDF13P16	**405661**
		4	EDF14P16	**405660**
1	2000 to 2500	3	EDF13P25	**405663**
		4	EDF14P25	**405662**
2	3200 to 4000	3	EDF23P40	**405665**
		4	EDF24P40	**405664**

Air circuit breaker - type N - 65kA - Non-automatic

Frame 1 & 2

Basic circuit breaker manually operated, non automatic (switch only, no protection unit option available), 5 NO and 3 NC auxiliary switches.
Withdrawable pattern - basic circuit breaker and cassette with flat copper terminals, rear connected. Fixed Pattern - basic circuit breaker with rear horizontal terminals.

Withdrawable and fixed pattern



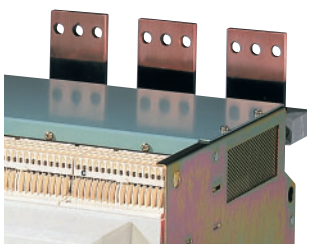
Frame size	Rating (A)	Poles	Position of the neutral	Withdrawable		Fixed Pattern	
				Cat. no.	Ref. No.	Cat. no.	Ref. No.
1	400	3		MN31W04	**405163**	MN31F04	**405193**
		4	Left	MN4L1W04	**405162**	MN4L1F04	**405192**
		4	Right	MN4R1W04	**405430**	MN4R1F04	**405470**
1	630	3		MN31W06	**405165**	MN31F06	**405195**
		4	Left	MN4L1W06	**405164**	MN4L1F06	**405194**
		4	Right	MN4R1W06	**405432**	MN4R1F06	**405472**
1	800	3		MN31W08	**405167**	MN31F08	**405197**
		4	Left	MN4L1W08	**405166**	MN4L1F08	**405196**
		4	Right	MN4R1W08	**405434**	MN4R1F08	**405474**
1	1000	3		MN31W10	**405169**	MN31F10	**405199**
		4	Left	MN4L1W10	**405168**	MN4L1F10	**405198**
		4	Right	MN4R1W10	**405436**	MN4R1F10	**405476**
1	1250	3		MN31W12	**405171**	MN31F12	**405201**
		4	Left	MN4L1W12	**405170**	MN4L1F12	**405200**
		4	Right	MN4R1W12	**405438**	MN4R1F12	**405478**
1	1600	3		MN31W16	**405173**	MN31F16	**405203**
		4	Left	MN4L1W16	**405172**	MN4L1F16	**405202**
		4	Right	MN4R1W16	**405456**	MN4R1F16	**405480**
1	2000	3		MN31W20	**405175**	MN31F20	**405205**
		4	Left	MN4L1W20	**405174**	MN4L1F20	**405204**
		4	Right	MN4R1W20	**405458**	MN4R1F20	**405482**
1	2500	3		MN31W25	**405177**	MN31F25	**405207**
		4	Left	MN4L1W25	**405176**	MN4L1F25	**405206**
		4	Right	MN4R1W25	**405460**	MN4R1F25	**405484**
2	2000	3		MN32W20	**405179**	MN32F20	**405209**
		4	Left	MN4L2W20	**405178**	MN4L2F20	**405208**
		4	Right	MN4R2W20	**405462**	MN4R2F20	**405486**
2	2500	3		MN32W25	**405181**	MN32F25	**405211**
		4	Left	MN4L2W25	**405180**	MN4L2F25	**405210**
		4	Right	MN4R2W25	**405464**	MN4R2F25	**405488**
2	3200	3		MN32W32	**405183**	MN32F32	**405213**
		4	Left	MN4L2W32	**405182**	MN4L2F32	**405212**
		4	Right	MN4R2W32	**405466**	MN4R2F32	**405490**
2	4000	3		MN32W40	**405185**	MN32F40	**405215**
		4	Left	MN4L2W40	**405184**	MN4L2F40	**405214**
		4	Right	MN4R2W40	**405468**	MN4R2F40	**405492**

Rear connections

Frame size	Rating (A)	Poles	Withdrawable or cassettes			Fixed Pattern		
			Cat. no.	Ref. No.	Type	Cat. no.	Ref. No.	Type
1	400 to 2500	3	RT1UNI	**405600**	Universal	RT1SNVFIX	**405609**	Vertical
		4	RT1UNI	**405600**	Universal	RT1SNVFIX	**405609**	Vertical
2	800 to 3200	3	RT2UNI	**405601**	Universal	RT2SNHVFIX	**405621**	Vertical
		4	RT2UNI	**405601**	Universal	RT2SNHVFIX	**405621**	Vertical
2	4000	3	N/A	**N/A**	Vertical	RT2SNHVFIX	**405621**	Vertical
		4	N/A	**N/A**	Vertical	RT2SNHVFIX	**405621**	Vertical

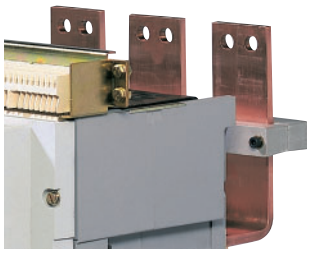
Rear Connections specified in multiples of 3, 4, 6 or 8 dependant on 3 or 4 pole configuration - top and / or bottom connections.

Front access connections



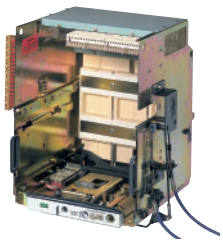
Frame size	Rating (A)	Poles	Withdrawable			
			TOP connections		BOTTOM connections	
			Cat. no.	Ref. No.	Cat. no.	Ref. No.
1	400 to 1600	3	FA31WN16T	**405945**	FA31WN16B	**406045**
		4	FA41WN16T	**405946**	FA41WN16B	**406046**
1	2000 to 2500	3	FA31WN25T	**405947**	FA31WN25B	**406047**
		4	FA41WN25T	**405948**	FA41WN25B	**406048**
2	800 to 3200	3	FA32WN32T	**405949**	FA32WN32B	**406049**
		4	FA42WN32T	**405950**	FA42WN32B	**406050**
2	4000	3	FA32WN40T	**405951**	FA32WN40B	**406051**
		4	FA42WN40T	**405952**	FA42WN40B	**406052**

Front access connections



Frame size	Rating (A)	Poles	Fixed pattern			
			TOP connections		BOTTOM connections	
			Cat. no.	Ref. No.	Cat. no.	Ref. No.
1	400 to 1600	3	FA31FN16T	**405957**	FA31FN16B	**405557**
		4	FA41FN16T	**405958**	FA41FN16B	**405558**
1	2000 to 2500	3	FA31FN25T	**405959**	FA31FN25B	**405559**
		4	FA41FN25T	**405960**	FA41FN25B	**405560**
2	800 to 3200	3	FA32FN32T	**405961**	FA32FN32B	**405561**
		4	FA42FN32T	**405962**	FA42FN32B	**405562**
2	4000	3	FA32FN40T	**405963**	FA32FN40B	**405563**
		4	FA42FN40T	**405964**	FA42FN40B	**405564**

Cassette only



Basic cassette with flat copper terminals rear connected, integral racking handle, safety shutters and lockable safety features.

Frame size	Rating (A)	Poles	Cat. no.	Ref. No.
1	400 to 2500	3	MN31C25	**405345**
		4	MN41C25	**405344**
2	800 to 3200	3	MN32C32	**405347**
		4	MN42C32	**405346**
2	4000	3	MN32C40	**405349**
		4	MN42C40	**405348**

Moving portion only

Basic circuit breaker manually operated, non automatic (switch only, no protection unit option available), 5 NO and 3 NC auxiliary switches and cluster contacts.

Frame size	Rating (A)	Poles	Position of the neutral	Cat. no.	Ref. No.
1	400	3		MN31M04	**405833**
		4	Left	MN4L1M04	**405834**
		4	Right	MN4R1M04	**405596**
1	630	3		MN31M06	**405835**
		4	Left	MN4L1M06	**405836**
		4	Right	MN4R1M06	**405598**
1	800	3		MN31M08	**405837**
		4	Left	MN4L1M08	**405838**
		4	Right	MN4R1M08	**405602**
1	1000	3		MN31M10	**405839**
		4	Left	MN4L1M10	**405840**
		4	Right	MN4R1M10	**405604**
1	1250	3		MN31M12	**405841**
		4	Left	MN4L1M12	**405842**
		4	Right	MN4R1M12	**405622**
1	1600	3		MN31M16	**405843**
		4	Left	MN4L1M16	**405844**
		4	Right	MN4R1M16	**405624**
1	2000	3		MN31M20	**405845**
		4	Left	MN4L1M20	**405846**
		4	Right	MN4R1M20	**405626**
1	2500	3		MN31M25	**405847**
		4	Left	MN4L1M25	**405848**
		4	Right	MN4R1M25	**405628**
2	2000	3		MN32M20	**405849**
		4	Left	MN4L2M20	**405850**
		4	Right	MN4R2M20	**405630**
2	2500	3		MN32M25	**405851**
		4	Left	MN4L2M25	**405852**
		4	Right	MN4R2M25	**405632**
2	3200	3		MN32M32	**405853**
		4	Left	MN4L2M32	**405854**
		4	Right	MN4R2M32	**405634**
2	4000	3		MN32M40	**405855**
		4	Left	MN4L2M40	**405856**
		4	Right	MN4R2M40	**405636**

Earthing device

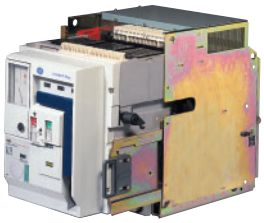
Frame size	Rating (A)	Poles	Cat. no.	Ref. No.
1	400 to 1600	3	EDF13P16	**405661**
		4	EDF14P16	**405660**
1	2000 to 2500	3	EDF13P25	**405663**
		4	EDF14P25	**405662**
2	3200 to 4000	3	EDF23P40	**405665**
		4	EDF24P40	**405664**

Air circuit breaker - type N - 65kA - Automatic

Frame 1 & 2 *(Please select trip unit type in page B.16)*

Basic circuit breaker manually operated, automatic (must be fitted with an MPRO Protection Unit as listed on page B.16), 5 NO and 3 NC auxiliary switches. Withdrawable pattern - basic circuit breaker and cassette with flat copper terminals, rear connected.
Fixed Pattern - basic circuit breaker with rear horizontal terminals.

Withdrawable and fixed pattern



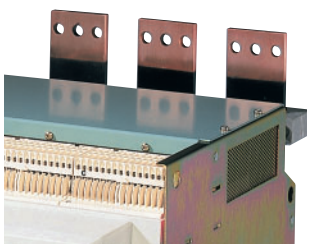
Frame size	Rating (A)	Poles	Position of the neutral	Withdrawable		Fixed Pattern	
				Cat. no.	Ref. No.	Cat. no.	Ref. No.
1	400	3		MN31W04-A	**405351**	MN31F04-A	**405657**
		4	Left	MN4L1W04-A	**405350**	MN4L1F04-A	**405656**
		4	Right	MN4R1W04-A	**405832**	MN4R1F04-A	**406054**
1	630	3		MN31W06-A	**405353**	MN31F06-A	**405659**
		4	Left	MN4L1W06-A	**405352**	MN4L1F06-A	**405658**
		4	Right	MN4R1W06-A	**405864**	MN4R1F06-A	**406094**
1	800	3		MN31W08-A	**405361**	MN31F08-A	**405681**
		4	Left	MN4L1W08-A	**405360**	MN4L1F08-A	**405680**
		4	Right	MN4R1W08-A	**405866**	MN4R1F08-A	**406096**
1	1000	3		MN31W10-A	**405363**	MN31F10-A	**405721**
		4	Left	MN4L1W10-A	**405362**	MN4L1F10-A	**405720**
		4	Right	MN4R1W10-A	**405882**	MN4R1F10-A	**406098**
1	1250	3		MN31W12-A	**405412**	MN31F12-A	**405731**
		4	Left	MN4L1W12-A	**405410**	MN4L1F12-A	**405730**
		4	Right	MN4R1W12-A	**405902**	MN4R1F12-A	**406114**
1	1600	3		MN31W16-A	**405415**	MN31F16-A	**405733**
		4	Left	MN4L1W16-A	**405414**	MN4L1F16-A	**405732**
		4	Right	MN4R1W16-A	**405904**	MN4R1F16-A	**406116**
1	2000	3		MN31W20-A	**405417**	MN31F20-A	**405735**
		4	Left	MN4L1W20-A	**405416**	MN4L1F20-A	**405734**
		4	Right	MN4R1W20-A	**405994**	MN4R1F20-A	**406118**
1	2500	3		MN31W25-A	**405419**	MN31F25-A	**405737**
		4	Left	MN4L1W25-A	**405418**	MN4L1F25-A	**405736**
		4	Right	MN4R1W25-A	**405996**	MN4R1F25-A	**406120**
2	2000	3		MN32W20-A	**405425**	MN32F20-A	**405779**
		4	Left	MN4L2W20-A	**405424**	MN4L2F20-A	**405778**
		4	Right	MN4R2W20-A	**406020**	MN4R2F20-A	**406122**
2	2500	3		MN32W25-A	**405445**	MN32F25-A	**405781**
		4	Left	MN4L2W25-A	**405444**	MN4L2F25-A	**405780**
		4	Right	MN4R2W25-A	**406032**	MN4R2F25-A	**406124**
2	3200	3		MN32W32-A	**405453**	MN32F32-A	**405783**
		4	Left	MN4L2W32-A	**405452**	MN4L2F32-A	**405782**
		4	Right	MN4R2W32-A	**406042**	MN4R2F32-A	**406126**
2	4000	3		MN32W40-A	**405455**	MN32F40-A	**405785**
		4	Left	MN4L2W40-A	**405454**	MN4L2F40-A	**405784**
		4	Right	MN4R2W40-A	**406044**	MN4R2F40-A	**406128**

Rear connections

Frame size	Rating (A)	Poles	Withdrawable or cassettes			Fixed Pattern		
			Cat. no.	Ref. No.	Type	Cat. no.	Ref. No.	Type
1	400 to 2500	3	RT1UNI	**405600**	Universal	RT1SNVFIX	**405609**	Vertical
		4	RT1UNI	**405600**	Universal	RT1SNVFIX	**405609**	Vertical
2	800 to 3200	3	RT2UNI	**405601**	Universal	RT2SNHVFIX	**405621**	Vertical
		4	RT2UNI	**405601**	Universal	RT2SNHVFIX	**405621**	Vertical
2	4000	3	N/A	**N/A**	Vertical	RT2SNHVFIX	**405621**	Vertical
		4	N/A	**N/A**	Vertical	RT2SNHVFIX	**405621**	Vertical

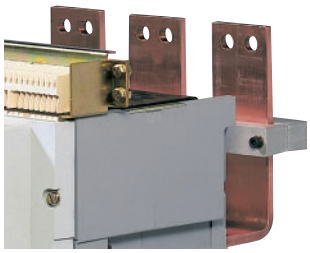
Rear Connections specified in multiples of 3, 4, 6 or 8 dependant on 3 or 4 pole configuration - top and / or bottom connections.

Front access connections



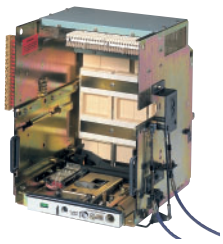
Frame size	Rating (A)	Poles	Withdrawable			
			TOP connections		BOTTOM connections	
			Cat. no.	Ref. No.	Cat. no.	Ref. No.
1	400 to 1600	3	FA31WN16T	**405945**	FA31WN16B	**406045**
		4	FA41WN16T	**405946**	FA41WN16B	**406046**
1	2000 to 2500	3	FA31WN25T	**405947**	FA31WN25B	**406047**
		4	FA41WN25T	**405948**	FA41WN25B	**406048**
2	800 to 3200	3	FA32WN32T	**405949**	FA32WN32B	**406049**
		4	FA42WN32T	**405950**	FA42WN32B	**406050**
2	4000	3	FA32WN40T	**405951**	FA32WN40B	**406051**
		4	FA42WN40T	**405952**	FA42WN40B	**406052**

Front access connections



Frame size	Rating (A)	Poles	Fixed pattern			
			TOP connections		BOTTOM connections	
			Cat. no.	Ref. No.	Cat. no.	Ref. No.
1	400 to 1600	3	FA31FN16T	**405957**	FA31FN16B	**405557**
		4	FA41FN16T	**405958**	FA41FN16B	**405558**
1	2000 to 2500	3	FA31FN25T	**405959**	FA31FN25B	**405559**
		4	FA41FN25T	**405960**	FA41FN25B	**405560**
2	800 to 3200	3	FA32FN32T	**405961**	FA32FN32B	**405561**
		4	FA42FN32T	**405962**	FA42FN32B	**405562**
2	4000	3	FA32FN40T	**405963**	FA32FN40B	**405563**
		4	FA42FN40T	**405964**	FA42FN40B	**405564**

Cassette only



Basic cassette with flat copper terminals rear connected, integral racking handle, safety shutters and lockable safety features.

Frame size	Rating (A)	Poles	Cat. no.	Ref. No.
1	400 to 2500	3	MN31C25	**405345**
		4	MN41C25	**405344**
2	800 to 3200	3	MN32C32	**405347**
		4	MN42C32	**405346**
2	4000	3	MN32C40	**405349**
		4	MN42C40	**405348**

Moving portion only

Basic circuit breaker manually operated, non automatic (switch only, no protection unit option available), 5 NO and 3 NC auxiliary switches and cluster contacts.

Frame size	Rating (A)	Poles	Position of the neutral	Cat. no.	Ref. No.
1	400	3		MN31M04-A	**405953**
		4	Left	MN4L1M04-A	**405954**
		4	Right	MN4R1M04-A	**406220**
1	630	3		MN31M06-A	**405955**
		4	Left	MN4L1M06-A	**405956**
		4	Right	MN4R1M06-A	**406222**
1	800	3		MN31M08-A	**405965**
		4	Left	MN4L1M08-A	**405966**
		4	Right	MN4R1M08-A	**406224**
1	1000	3		MN31M10-A	**405967**
		4	Left	MN4L1M10-A	**405968**
		4	Right	MN4R1M10-A	**406226**
1	1250	3		MN31M12-A	**405969**
		4	Left	MN4L1M12-A	**405970**
		4	Right	MN4R1M12-A	**406228**
1	1600	3		MN31M16-A	**405971**
		4	Left	MN4L1M16-A	**405972**
		4	Right	MN4R1M16-A	**406230**
1	2000	3		MN31M20-A	**405977**
		4	Left	MN4L1M20-A	**405978**
		4	Right	MN4R1M20-A	**406232**
1	2500	3		MN31M25-A	**405979**
		4	Left	MN4L1M25-A	**405980**
		4	Right	MN4R1M25-A	**406234**
2	2000	3		MN32M20-A	**405981**
		4	Left	MN4L2M20-A	**405982**
		4	Right	MN4R2M20-A	**406236**
2	2500	3		MN32M25-A	**405983**
		4	Left	MN4L2M25-A	**405984**
		4	Right	MN4R2M25-A	**406238**
2	3200	3		MN32M32-A	**405989**
		4	Left	MN4L2M32-A	**405990**
		4	Right	MN4R2M32-A	**406240**
2	4000	3		MN32M40-A	**405991**
		4	Left	MN4L2M40-A	**405992**
		4	Right	MN4R2M40-A	**406242**

Earthing device

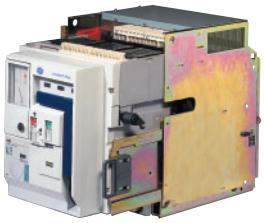
Frame size	Rating (A)	Poles	Cat. no.	Ref. No.
1	400 to 1600	3	EDF13P16	**405661**
		4	EDF14P16	**405660**
1	2000 to 2500	3	EDF13P25	**405663**
		4	EDF14P25	**405662**
2	3200 to 4000	3	EDF23P40	**405665**
		4	EDF24P40	**405664**

Air circuit breaker - type H - 80kA - Non-automatic

Frame 2

Basic circuit breaker manually operated, non automatic (switch only, no protection unit option available), 5 NO and 3 NC auxiliary switches.
Withdrawable pattern - basic circuit breaker and cassette with flat copper terminals, rear connected. Fixed Pattern - basic circuit breaker with rear horizontal terminals.

Withdrawable and fixed pattern



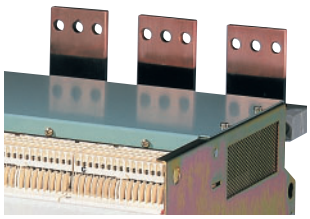
Frame size	Rating (A)	Poles	Position of the neutral	Withdrawable		Fixed Pattern	
				Cat. no.	Ref. No.	Cat. no.	Ref. No.
2	800	3		MH32W08	**405227**	MH32F08	**405257**
		4	Left	MH4L2W08	**405226**	MH4L2F08	**405256**
		4	Right	MH4R2W08	**405494**	MH4R2F08	**405509**
2	1000	3		MH32W10	**405229**	MH32F10	**405259**
		4	Left	MH4L2W10	**405228**	MH4L2F10	**405258**
		4	Right	MH4R2W10	**405496**	MH4R2F10	**405510**
2	1250	3		MH32W12	**405231**	MH32F12	**405261**
		4	Left	MH4L2W12	**405230**	MH4L2F12	**405260**
		4	Right	MH4R2W12	**405498**	MH4R2F12	**405512**
2	1600	3		MH32W16	**405233**	MH32F16	**405263**
		4	Left	MH4L2W16	**405232**	MH4L2F16	**405262**
		4	Right	MH4R2W16	**405500**	MH4R2F16	**405514**
2	2000	3		MH32W20	**405235**	MH32F20	**405265**
		4	Left	MH4L2W20	**405234**	MH4L2F20	**405264**
		4	Right	MH4R2W20	**405502**	MH4R2F20	**405516**
2	2500	3		MH32W25	**405237**	MH32F25	**405267**
		4	Left	MH4L2W25	**405236**	MH4L2F25	**405266**
		4	Right	MH4R2W25	**405504**	MH4R2F25	**405518**
2	3200	3		MH32W32	**405243**	MH32F32	**405273**
		4	Left	MH4L2W32	**405242**	MH4L2F32	**405272**
		4	Right	MH4R2W32	**405506**	MH4R2F32	**405520**
2	4000	3		MH32W40	**405245**	MH32F40	**405275**
		4	Left	MH4L2W40	**405244**	MH4L2F40	**405274**
		4	Right	MH4R2W40	**405508**	MH4R2F40	**405522**

Rear connections

Frame size	Rating (A)	Poles	Withdrawable or cassettes			Fixed Pattern		
			Cat. no.	Ref. No.	Type	Cat. no.	Ref. No.	Type
2	800 to 3200	3	RT2UNI	**405601**	Universal	RT2SNHVFIX	**405621**	Vertical
		4	RT2UNI	**405601**	Universal	RT2SNHVFIX	**405621**	Vertical
2	4000	3	N/A	**N/A**	Vertical	RT2SNHVFIX	**405621**	Vertical
		4	N/A	**N/A**	Vertical	RT2SNHVFIX	**405621**	Vertical

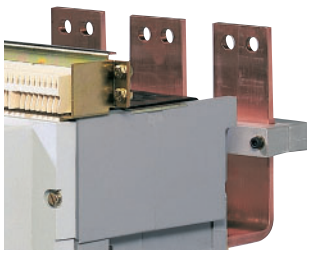
Rear Connections specified in multiples of 3, 4, 6 or 8 dependant on 3 or 4 pole configuration - top and / or bottom connections.

Front access connections



Frame size	Rating (A)	Poles	Withdrawable			
			TOP connections		BOTTOM connections	
			Cat. no.	Ref. No.	Cat. no.	Ref. No.
2	800 to 3200	3	FA32WH32T	**405973**	FA32WH32B	**405553**
		4	FA42WH32T	**405974**	FA42WH32B	**405554**
2	4000	3	FA32WH40T	**405975**	FA32WH40B	**405555**
		4	FA42WH40T	**405976**	FA42WH40B	**405556**

Front access connections



Frame size	Rating (A)	Poles	Fixed pattern			
			TOP connections		BOTTOM connections	
			Cat. no.	Ref. No.	Cat. no.	Ref. No.
2	800 to 3200	3	FA32FH32T	**405985**	FA32FH32B	**405565**
		4	FA42FH32T	**405986**	FA42FH32B	**405566**
2	4000	3	FA32FH40T	**405987**	FA32FH40B	**405567**
		4	FA42FH40T	**405988**	FA42FH40B	**405568**

Cassette only

Basic cassette with flat copper terminals rear connected (800-3200A), integral racking handle, safety shutters and lockable safety features.
4000A units fitted with rear vertical terminals as standard (not to be removed).

Frame size	Rating (A)	Poles	Cat. no.	Ref. No.
2	800 to 3200	3	MH32C32	**405357**
		4	MH42C32	**405356**
2	4000	3	MH32C40	**405359**
		4	MH42C40	**405358**

Moving portion only

Basic circuit breaker manually operated, non automatic (switch only, no protection unit option available), 5 NO and 3 NC auxiliary switches and cluster contacts.

Frame size	Rating (A)	Poles	Position of the neutral	Cat. no.	Ref. No.
2	800	3		MH32M08	**405867**
		4	Left	MH4L2M08	**405868**
		4	Right	MH4R2M08	**405638**
2	1000	3		MH32M10	**405869**
		4	Left	MH4L2M10	**405870**
		4	Right	MH4R2M10	**405640**
2	1250	3		MH32M12	**405871**
		4	Left	MH4L2M12	**405872**
		4	Right	MH4R2M12	**405642**
2	1600	3		MH32M16	**405873**
		4	Left	MH4L2M16	**405874**
		4	Right	MH4R2M16	**405644**
2	2000	3		MH32M20	**405875**
		4	Left	MH4L2M20	**405876**
		4	Right	MH4R2M20	**405646**
2	2500	3		MH32M25	**405877**
		4	Left	MH4L2M25	**405878**
		4	Right	MH4R2M25	**405648**
2	3200	3		MH32M32	**405883**
		4	Left	MH4L2M32	**405884**
		4	Right	MH4R2M32	**405650**
2	4000	3		MH32M40	**405885**
		4	Left	MH4L2M40	**405886**
		4	Right	MH4R2M40	**405652**

Earthing device

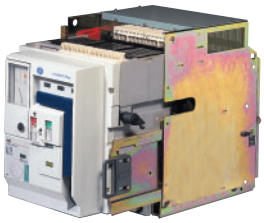
Frame size	Rating (A)	Poles	Cat. no.	Ref. No.
1	800 to 4000	3	EDF23P40	**405665**
		4	EDF24P40	**405664**

Air circuit breaker - type H - 80kA - Automatic

Frame 2 *(Please select trip unit type in page B.16)*

Basic circuit breaker manually operated, automatic (must be fitted with an MPRO Protection Unit as listed on page B.16), 5 NO and 3 NC auxiliary switches. Withdrawable pattern - basic circuit breaker and cassette with flat copper terminals, rear connected.
Fixed Pattern - basic circuit breaker with rear horizontal terminals.

Withdrawable and fixed pattern



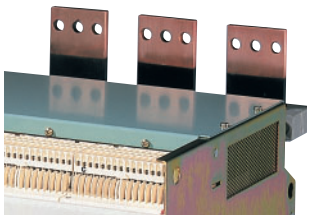
Frame size	Rating (A)	Poles	Position of the neutral	Withdrawable		Fixed Pattern	
				Cat. no.	Ref. No.	Cat. no.	Ref. No.
2	800	3		MH32W08-A	**405797**	MH32F08-A	**405881**
		4	Left	MH4L2W08-A	**405796**	MH4L2F08-A	**405880**
		4	Right	MH4R2W08-A	**406130**	MH4R2F08-A	**406146**
2	1000	3		MH32W10-A	**405799**	MH32F10-A	**405889**
		4	Left	MH4L2W10-A	**405802**	MH4L2F10-A	**405888**
		4	Right	MH4R2W10-A	**406134**	MH4R2F10-A	**406148**
2	1250	3		MH32W12-A	**405801**	MH32F12-A	**405891**
		4	Left	MH4L2W12-A	**405798**	MH4L2F12-A	**405890**
		4	Right	MH4R2W12-A	**406132**	MH4R2F12-A	**406150**
2	1600	3		MH32W16-A	**405829**	MH32F16-A	**405893**
		4	Left	MH4L2W16-A	**405828**	MH4L2F16-A	**405892**
		4	Right	MH4R2W16-A	**406136**	MH4R2F16-A	**406152**
2	2000	3		MH32W20-A	**405831**	MH32F20-A	**405895**
		4	Left	MH4L2W20-A	**405830**	MH4L2F20-A	**405894**
		4	Right	MH4R2W20-A	**406138**	MH4R2F20-A	**406154**
2	2500	3		MH32W25-A	**405859**	MH32F25-A	**405897**
		4	Left	MH4L2W25-A	**405858**	MH4L2F25-A	**405896**
		4	Right	MH4R2W25-A	**406140**	MH4R2F25-A	**406156**
2	3200	3		MH32W32-A	**405861**	MH32F32-A	**405899**
		4	Left	MH4L2W32-A	**405860**	MH4L2F32-A	**405898**
		4	Right	MH4R2W32-A	**406142**	MH4R2F32-A	**406158**
2	4000	3		MH32W40-A	**405863**	MH32F40-A	**405901**
		4	Left	MH4L2W40-A	**405862**	MH4L2F40-A	**405900**
		4	Right	MH4R2W40-A	**406144**	MH4R2F40-A	**406160**

Rear connections

Frame size	Rating (A)	Poles	Withdrawable or cassettes			Fixed Pattern		
			Cat. no.	Ref. No.	Type	Cat. no.	Ref. No.	Type
2	800 to 3200	3	RT2UNI	**405601**	Universal	RT2SNHVFIX	**405621**	Vertical
		4	RT2UNI	**405601**	Universal	RT2SNHVFIX	**405621**	Vertical
2	4000	3	N/A	**N/A**	Vertical	RT2SNHVFIX	**405621**	Vertical
		4	N/A	**N/A**	Vertical	RT2SNHVFIX	**405621**	Vertical

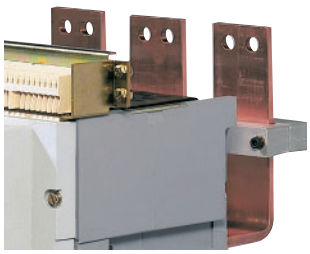
Rear Connections specified in multiples of 3, 4, 6 or 8 dependant on 3 or 4 pole configuration - top and / or bottom connections.

Front access connections



Frame size	Rating (A)	Poles	Withdrawable			
			TOP connections		BOTTOM connections	
			Cat. no.	Ref. No.	Cat. no.	Ref. No.
2	800 to 3200	3	FA32WH32T	**405973**	FA32WH32B	**405553**
		4	FA42WH32T	**405974**	FA42WH32B	**405554**
2	4000	3	FA32WH40T	**405975**	FA32WH40B	**405555**
		4	FA42WH40T	**405976**	FA42WH40B	**405556**

Front access connections



Frame size	Rating (A)	Poles	Fixed pattern			
			TOP connections		BOTTOM connections	
			Cat. no.	Ref. No.	Cat. no.	Ref. No.
2	800 to 3200	3	FA32FH32T	**405985**	FA32FH32B	**405565**
		4	FA42FH32T	**405986**	FA42FH32B	**405566**
2	4000	3	FA32FH40T	**405987**	FA32FH40B	**405567**
		4	FA42FH40T	**405988**	FA42FH40B	**405568**

Cassette only

Basic cassette with flat copper terminals rear connected (800-3200A), integral racking handle, safety shutters and lockable safety features.
4000A units fitted with rear vertical terminals as standard (not to be removed).

Frame size	Rating (A)	Poles	Cat. no.	Ref. No.
2	800 to 3200	3	MH32C32	**405357**
		4	MH42C32	**405356**
2	4000	3	MH32C40	**405359**
		4	MH42C40	**405358**

Moving portion only

Basic circuit breaker manually operated, non automatic (switch only, no protection unit option available), 5 NO and 3 NC auxiliary switches and cluster contacts.

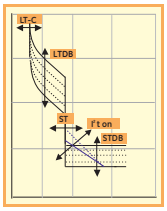
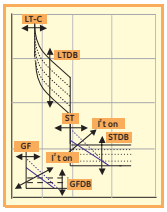
Frame size	Rating (A)	Poles	Position of the neutral	Cat. no.	Ref. No.
2	800	3		MH32M08-A	**405997**
		4	Left	MH4L2M08-A	**405998**
		4	Right	MH4R2M08-A	**406244**
2	1000	3		MH32M10-A	**405999**
		4	Left	MH4L2M10-A	**406000**
		4	Right	MH4R2M10-A	**406246**
2	1250	3		MH32M12-A	**406001**
		4	Left	MH4L2M12-A	**406002**
		4	Right	MH4R2M12-A	**406248**
2	1600	3		MH32M16-A	**406003**
		4	Left	MH4L2M16-A	**406004**
		4	Right	MH4R2M16-A	**406250**
2	2000	3		MH32M20-A	**406005**
		4	Left	MH4L2M20-A	**406006**
		4	Right	MH4R2M20-A	**406252**
2	2500	3		MH32M25-A	**406007**
		4	Left	MH4L2M25-A	**406008**
		4	Right	MH4R2M25-A	**406254**
2	3200	3		MH32M32-A	**406009**
		4	Left	MH4L2M32-A	**406010**
		4	Right	MH4R2M32-A	**406256**
2	4000	3		MH32M40-A	**406011**
		4	Left	MH4L2M40-A	**406012**
		4	Right	MH4R2M40-A	**406258**

Earthing device

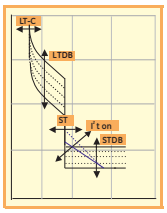
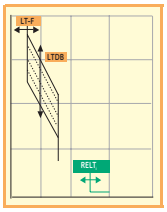
Frame size	Rating (A)	Poles	Cat. no.	Ref. No.
1	800 to 4000	3	EDF23P40	**405665**
		4	EDF24P40	**405664**

Factory Mounted Trip Units

MPRO-27

	Functionality and application		Cat. No.	Ref. No.
Basic functionality	**MPRO-27 trip unit**	**For Frame 1**	GL100M3-SF	**408870**
	LT-C 0.4-1 x In = Ir LTDB ST I^2t ON or OFF STDB I	**For Frame 2**	GL200M3-SF	**408874**
Extended functionality	**MPRO-27 trip unit**	**For Frame 1**	GL100M5-SF	**408871**
	LT-C 0.4-1 x In = Ir LTDB ST I^2t ON or OFF STDB I GF sum. I^2t ON GFDB	**For Frame 2**	GL200M5-SF	**408875**

MPRO-50

	Functionality and application			
Basic functionality	**MPRO-50L trip unit**	**For Frame 1**	GH100M7-6SF	**408872**
		LT band choice (LT-C or LT-F)		
	LT-C 0.4-1 x In = Ir	Dual GF protection (Res./SUM or CT)		
	-OR-	Relt Instantaneous &		
	LT-F 0.4-1 x In = Ir	Modbus Communiction		
	ST			
	STD			
	GF sum. I^2t ON	**For Frame 2**	GH200M7-6SF	**408876**
	-AND/OR-	LT band choice (LT-C or LT-F)		
	GF CR I^2t ON	Dual GF protection (Res./SUM or CT)		
	GFDB	Relt Instantaneous &		
	I	Modbus Communiction		
	RELT			
	Input supply 24V DC[1]			
Extended functionality	**MPRO-50H trip unit**	**For Frame 1**	GQ100M7-6SF	**408873**
		LT band choice (LT-C or LT-F)		
	LT-C 0.4-1 x In = Ir	Dual GF protection (Res./SUM or CT)		
	-OR-	Relt Instantaneous &		
	LT-F 0.4-1 x In = Ir	Modbus Communiction		
	ST			
	STD			
	GF sum. I^2t ON	**For Frame 2**	GQ200M7-6SF	**408877**
	-AND/OR-	LT band choice (LT-C or LT-F)		
	GF CR I^2t ON	Dual GF protection (Res./SUM or CT)		
	GFDB	Relt Instantaneous &		
	I	Modbus Communiction		
	RELT			
	Input supply 110-130V DC or 110-250V AC[1]			

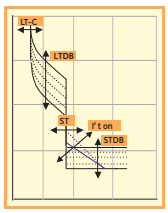
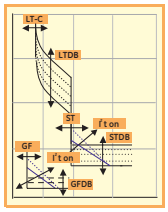
Accessories

	Designation		
	Power supply 222-265V AC - 24V DC 0.22A[1]	MPROAPU	**405547**
	Digital test kit	GTUTK20	**407999**

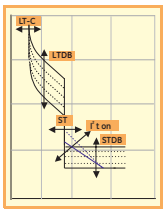
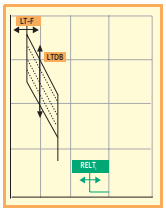
(1) To set GF settings below 0.2 x and to allow use of the 4 remote in- and 4 relay outputs andauciliary supply is required (APu unit can be used for 24V unit).

Spare Trip Units[1]

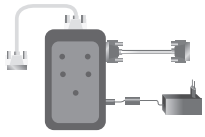
MPRO-27

	Functionality and application		Cat. No.	Ref. No.
Basic functionality	**MPRO-27 trip unit**	**For Frame 1**	GL100M3-SR	**408882**
	LT-C 0.4-1 x In = Ir LTDB ST I^2t ON or OFF STDB I	**For Frame 2**	GL200M3-SR	**408886**
Extended functionality	**MPRO-27 trip unit**	**For Frame 1**	GL100M5-SR	**408883**
	LT-C 0.4-1 x In = Ir LTDB ST I^2t ON or OFF STDB I GF sum. I^2t ON GFDB	**For Frame 2**	GL200M5-SR	**408887**

MPRO-50

	Functionality and application		Cat. No.	Ref. No.
Basic functionality	**MPRO-50L trip unit**	**For Frame 1**	GH100M7-6SR	**408884**
	LT-C 0.4-1 x In = Ir -ORLT- F 0.4-1 x In = Ir ST STD GF sum. I^2t ON -AND/OR- GF CR I^2t ON GFDB I RELT **Input supply 24V DC[2]**	LT band choice (LT-C or LT-F) Dual GF protection (Res./SUM or CT) Relt Instantaneous & Modbus Communiction		
		For Frame 2	GH200M7-6SR	**408888**
		LT band choice (LT-C or LT-F) Dual GF protection (Res./SUM or CT) Relt Instantaneous & Modbus Communiction		
Extended functionality	**MPRO-50H trip unit**	**For Frame 1**	GQ100M7-6SF	**408885**
	LT-C 0.4-1 x In = Ir -ORLT- F 0.4-1 x In = Ir ST STD GF sum. I^2t ON -AND/OR- GF CR I^2t ON GFDB I RELT **Input supply 110-130V DC or 110-250V AC[2]**	LT band choice (LT-C or LT-F) Dual GF protection (Res./SUM or CT) Relt Instantaneous & Modbus Communiction		
		For Frame 2	GQ200M7-6SF	**408889**
		LT band choice (LT-C or LT-F) Dual GF protection (Res./SUM or CT) Relt Instantaneous & Modbus Communiction		

Accessories

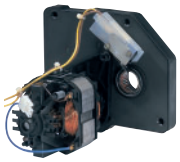
	Designation		Ref. No.
	Power supply 222-265V AC - 24V DC 0.22A[2]	MPROAPU	**405547**
	Digital test kit	GTUTK20	**407999**

(1) Please specify breaker serial number on ordering.
(2) To set GF settings below 0.2 x and to allow use of the 4 remote in- and 4 relay outputs andauciliary supply is required (APu unit can be used for 24V unit).

Frame 1 & 2

Electrical accessories

MPRO optional features	Range	Voltage	Cat. no.	Ref. No.
Shunt Trip (ST)	24/30V	DC	ST30	**405380**
	48V	DC	ST48	**405382**
	110/130V	AC/DC	ST130	**405386**
	220/250V	AC/DC	ST250	**405388**
	380/440V	AC	ST440	**405389**



Motor Operator (MOP)	24/30V	DC	MOP30	**405440**
	48V	DC	MOP48	**405442**
	110/130V	AC	MOP130A	**405446**
	110/130V	DC	MOP130D	**405917**
	220/250V	AC	MOP250A	**405448**

Closing Coil (CC)	24/30 V	DC	CC30	**405420**
	48 V	DC	CC48	**405422**
	110/130 V	AC/DC	CC130	**405426**
	220/250 V	AC/DC	CC250	**405428**

Undervoltage release (UV)	24/30V	DC	UV30	**405400**
	48V	DC	UV48	**405402**
	110/130V	AC	UV130A	**405406**
	110/130V	DC	UV130D	**405407**
	220/250V	AC	UV250	**405408**
	380/440V	AC	UV440	**405409**
Undervoltage release Time Delayed (UVTD)				
	48V	DC	UVTD48	**406322**
	110/130V	AC	UVTD130	**406326**
	220/250V	AC	UVTD250	**405411**
	380/440V	AC	UVTD440	**405413**

Carriage switch **Factory fitted**	250V	AC/DC	CSWFF	**405580**
Loose kit form	250V	AC/DC	CSWL	**405581**
Springs charged signal (x 1NO)			SCC	**405450**
Springs charged contact (x 1CO)			2WPFC	**405451**
Trip circuit supervision (shunt trip required)			TRIPCS	**406112**

Conversion kits

From fixed to withdrawable version	Cat. no.	Ref. No.
Type N 3P F1 <1600A	FXWD31N16	**405666**
Type S 3P F1 <1600A	FXWD31S16	**405667**
Type S & N 3P F1 2000/2500	FXWD31SN25	**405668**
Type S N & H 3P F2 3200A	FXWD32SNH32	**405669**
Type S N & H 3P F2 4000A	FXWD32SNH40	**405670**
Type S 4P F1 <1600A	FXWD41S16	**405671**
Type S & N 4P F1 2000/2500	FXWD41SN25	**405672**
Type S N & H 4P F2 3200A	FXWD42SNH32	**405673**
Type S N & H 4P F2 4000A	FXWD42SNH40	**405674**

Frame 1 & 2

Type A: order 1 interlock kit and 1 cable per ACB
Type B: order 1 interlock kit and 2 cable per ACB
Type C: order 1 interlock kit and 2 cable per ACB
Type D: order 1 interlock kit and 1 cable per **Supply** breaker plus 1 interlock kit for the **Control** breaker and 2 cables
For type D configuration 2 Supply Breakers and one Control Breaker are required.

Mechanical accessories

			Type A - 2 way interlock / Cable		Type B - 1 from 3 way interlock / Cable	
Frame size	**Version**	**Poles**	**Cat. no.**	**Ref. No.**	**Cat. no.**	**Ref. No.**
1	Withdrawable	3	2WCI3PW	**406342**	B13WCI3PW	**406350**
		4	2WCI4PW	**406343**	B13WCI4PW	**406351**
	Fixed	3	2WCI3PF	**406340**	B13WCI3PF	**406348**
		4	2WCI4PF	**406341**	B13WCI4PF	**406349**
2	Withdrawable	3	2WCIF23PW	**405459**	B13WCIF23PW	**405475**
		4	2WCIF24PW	**405461**	B13WCIF24PW	**405477**
	Fixed	3	2WCIF23PF	**405463**	B13WCIF23PF	**405479**
		4	2WCIF24PF	**405465**	B13WCIF24PF	**405481**

			Type C - 2 from 3 way interlock / Cable	
Frame size	**Version**	**Poles**	**Cat. no.**	**Ref. No.**
1	Withdrawable	3	C23WCI3PW	**406358**
		4	C23WCI4PW	**406359**
	Fixed	3	C23WCI3PF	**406356**
		4	C23WCI4PF	**406357**
2	Withdrawable	3	C23WCIF23PW	**405491**
		4	C23WCIF24PW	**405493**
	Fixed	3	C23WCIF23PF	**405495**
		4	C23WCIF24PF	**405497**

			Type D - 1 from 3 way interlock/cable - Supply Breakers		Type D - 1 from 3 way interlock/cable - Control Breaker	
Frame size	**Version**	**Poles**	**Cat. no.**	**Ref. No.**	**Cat. no.**	**Ref. No.**
1	Withdrawable	3	D13WCI3PW	**406366**	D13WCI3PWCON	**406966**
		4	D13WCI4PW	**406367**	D13WCI4PWCON	**406967**
	Fixed	3	D13WCI3PF	**406364**	D13WCI3PFCON	**406968**
		4	D13WCI4PF	**406365**	D13WCI4PFCON	**406969**
2	Withdrawable	3	D13WCIF23PW	**405511**	D13WCIF23PWCON	**406970**
		4	D13WCIF24PW	**405513**	D13WCIF24PWCON	**406971**
	Fixed	3	D13WCIF23PF	**405515**	D13WCIF23PFCON	**406972**
		4	D13WCIF24PF	**405517**	D13WCIF24PFCON	**406973**

Cable for interlock

Length	**Cat. no.**	**Ref. No.**[1]
1.0 meter	100BCMCI	**405531**
1.6 meter	160BCMCI	**405532**
2.0 meter	200BCMCI	**405533**
2.5 meter	250BCMCI	**405610**
3.0 meter	300BCMCI	**405611**
3.5 meter	350BCMCI	**405612**
4.0 meter	400BCMCI	**405613**

(1) Reference is for one cable

Interlocks

Frame size	**Item**	**Cat. no.**	**Ref. No.**
1, 2	Castell key breaker interlock (supplied loose)[1]	CASLOK	**405570**
	Fortress key breaker interlock (supplied loose)[1]	FORLOK	**405569**
	Profalux key breaker interlock (supplied loose)[1]	PROLOK	**405572**
	Profalux key cassete interlock (supplied loose)[1]	PROCAS	**405574**
	Ronis key breaker interlock (factory fitted)[2]	RONLKEY	**406335**
	Ronis key breaker interlock (supplied loose)[2]	RONWKEY	**406338**
	Ronis key breaker interlock (supplied loose)[1]	RONLOK	**405571**
	Ronis key cassete interlock (factory fitted)[2]	RONWKEYFF	**406339**
	Ronis key cassete interlock (supplied loose)[1]	RONCASNK	**406337**
	Ronis key cassete interlock (factory fitted)[1]	RONCAS	**405573**

Miscellaneous

Frame size	**Item**	**Cat. no.**	**Ref. No.**
1, 2	Operations counter	MOC	**405576**
	Left hand door interlock - hinged right	DILHS	**405578**
	Right hand door interlock - hinged left	DIRHS	**405579**
	Mis-insertion device (factory fitted)	ACBMID	**405605**
	Mis-insertion device (supplied loose)	ACBMIL	**405505**
	IP54 door	IP54DOOR	**405606**
	Handling (lifting) truck	ACBLIFT	**405607**
	Spare or replacement racking handle	MPRACKHAN	**406393**

(1) Without lock and key
(2) With lock and key

Frame 1 & 2

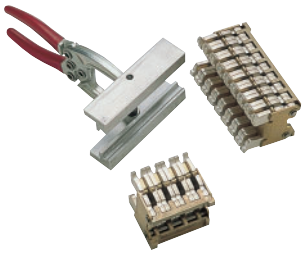
Spare parts

Frame size	Rating (A)	Neutral / Earth leg (4th) Current transformer with mounting kit: Current transformer Cat. no.	Current transformer Ref. No.	Neutral (4th) Rogowski coil with mounting kit: Rogowski coil[1] Cat. no.	Rogowski coil[1] Ref. No.
1	800	ELCT8001	405683	RCMK8001	405703
2		ELCT8002	405713	RCMK8002	405723
1	1000	ELCT10001	405684	RCMK10001	405704
2		ELCT10002	405714	RCMK10002	405724
1	1250	ELCT12501	405685	RCMK12501	405705
2		ELCT12502	405715	RCMK12502	405725
1	1600	ELCT16001	405686	RCMK16001	405706
2		ELCT16002	405716	RCMK16002	405726
1	2000	ELCT20001	405687	RCMK20001	405707
2		ELCT20002	405717	RCMK20002	405727
1	2500	ELCT25001	405688	RCMK25001	405708
2		ELCT25002	405718	RCMK25002	405728
2	3200	ELCT32002	405689	RCMK32002	405709
2	4000	ELCT40002	405690	RCMK40002	405710

Fixed and moving arcing contact

Frame size	Rating (A)	ACB type	Fixed: Qty. required per pole	Fixed: Cat. no.	Fixed: Ref. No.	Fixed Pattern: Qty. required per pole	Fixed Pattern: Cat. no.	Fixed Pattern: Ref. No.
1	800 to1600	S	2	FACS116	405738	1	MACS116	405739
1	2000 to 2500	S	4	FAC125	405742	1	MAC125	405743
2	3200	S	6	FAC232	405744	1	MAC232	405745
2	4000	S	6	FAC240	405746	1	MAC240	405747
1	800 to1600	N	3	FACN116	405740	1	MACN116	405741
1	2000 to 2500	N	4	FAC125	405742	1	MAC125	405743
2	3200	N	6	FAC232	405744	1	MAC232	405745
2	4000	N	6	FAC240	405746	1	MAC240	405747
2	800 to3200	H	6	FAC232	405744	1	MAC232	405745
2	4000	H	6	FAC240	405746	1	MAC240	405747

Cluster contacts



Frame size	Rating (A)	ACB type	Per pole	Cat. no.	Ref. No.
1	800 to1250	S	2	CLCS116	405769
1	2000 to 2500	S	2	CLC125	405771
2	3200	S	2	CLC232	405772
2	4000	S	2	CLC240	405773
1	800 to1600 (N) and 1600 (S)	N	2	CLCN116	405770
1	2000 to 2500	N	2	CLC125	405771
2	3200	N	2	CLC232	405772
2	4000	N	2	CLC240	405773
2	800 to 3200	H	2	CLC232	405772
2	4000	H	2	CLC240	405773
Universal Cluster pliers (to remove cluster contact)				UNIPLIER	405800

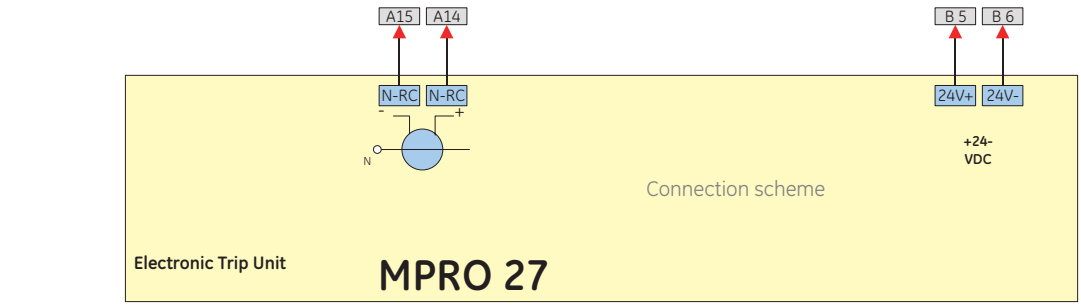
Arc chute

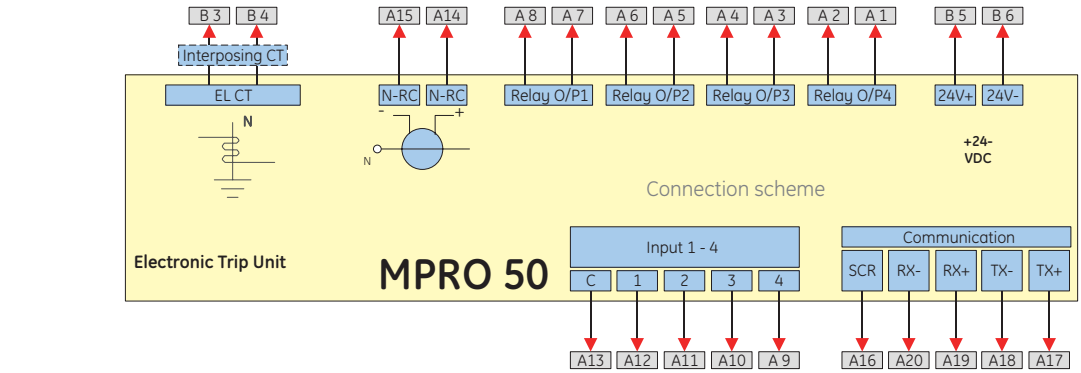
Frame size	Rating (A)	ACB type	Per pole	Cat. no.	Ref. No.
1	400 to 1600	S	1	ARC16	405787
1	<2500	S & N	1	ARC25	405790
2	3200	S &N	1	ARC32SN	405791
2	3200	H	1	ARC32H	405788
2	4000	S &N	1	ARC40SN	405792
2	4000	H	1	ARC40H	405789

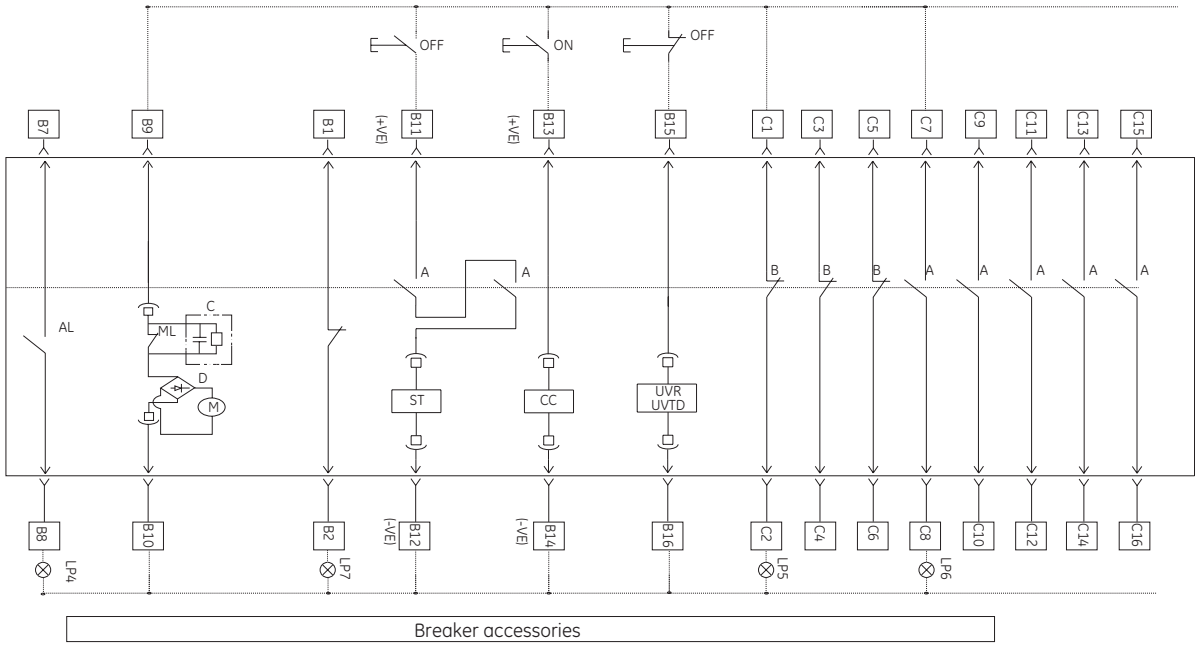
(1) Rogoswki coil provided with twisted pair of cable (max. length 2 m)

Technical overview A
Order codes B
C.2 MPRO 27 & 50 - Connection Scheme
C.3 Dimensional drawings
Wiring diagrams - Dimensional drawings C
Numerical index X

Wiring Diagrams







Breaker accessories

Frame accessories

key	
LP1	Disconnected indication
LP2	Test indication
LP3	Connected indication
LP4	ACB tripped indication
LP5	ACB OFF indication
LP6	ACB ON indication
LP7	Motor changing indicator
CT	POWER CT
RC	Rogowski coils

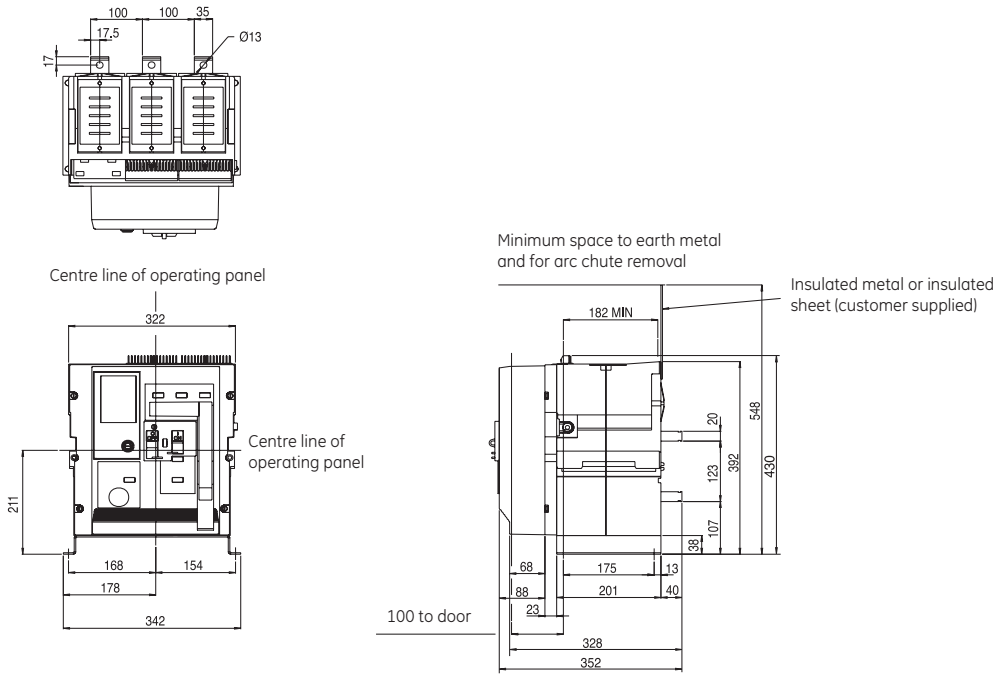
Breaker accessories

D	Rectifier
ML	Charging motor limit switch
M	Closing spring charging motor
ST	Shunt trip
CC	Closing coil
UVR	Under voltage release
UVTD	Time delayed undervoltage release
A	Auxiliary contacts (NO)
B	Auxiliary contacts (NC)
AL	M-PRO trip alarm (N/O)

Horizontal, rear access connection

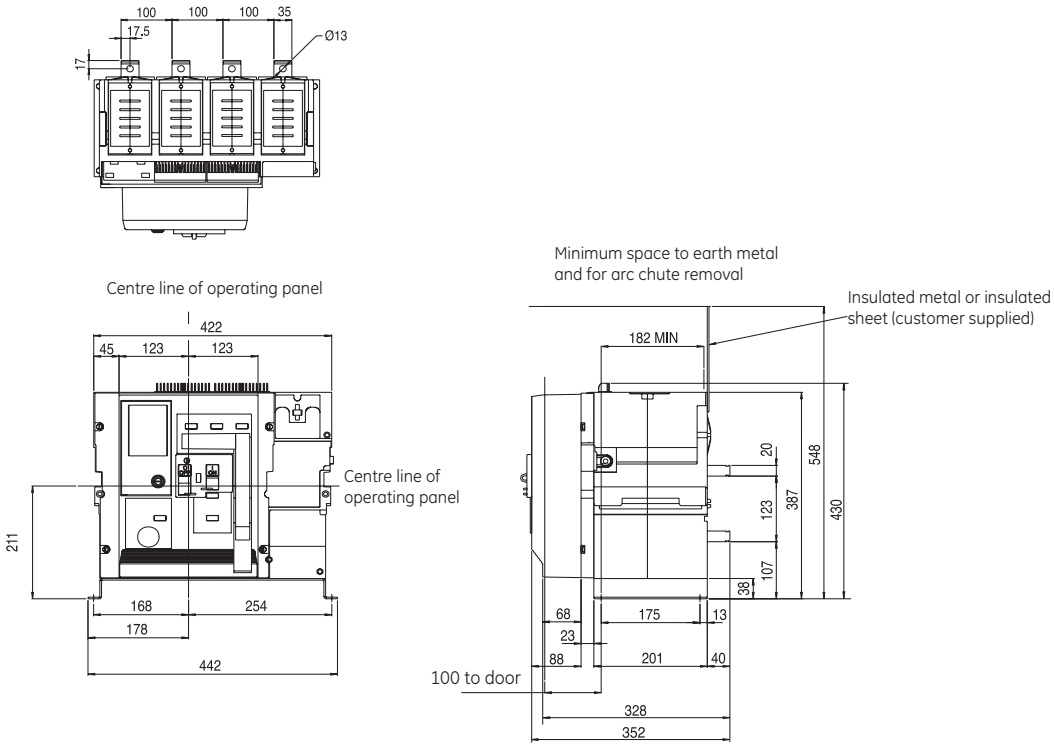
Fixed pattern

Type S - 3 pole - Frame size 1, In=400A to 1600A



Copperwork must be supported within 200 mm of breaker connections-busbars or cables. All connections to be tightened to 50Nm.

Type S - 4 pole - Frame size 1, In=400A to 1600A

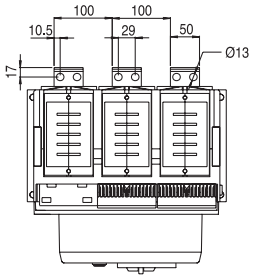


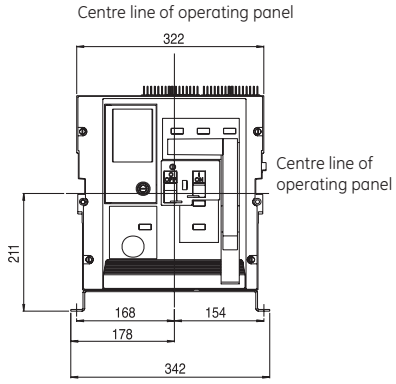
Copperwork must be supported within 200 mm of breaker connections-busbars or cables. All connections to be tightened to 50Nm.

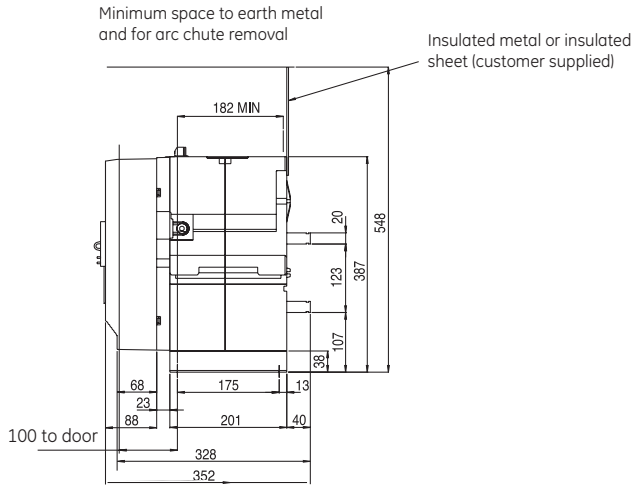
Horizontal, rear access connection

Fixed pattern

Type N - 3 pole - Frame size 1, In=400A to 1600A

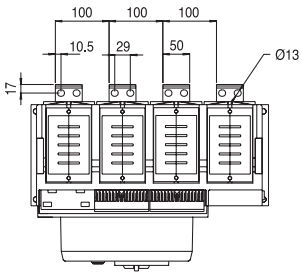


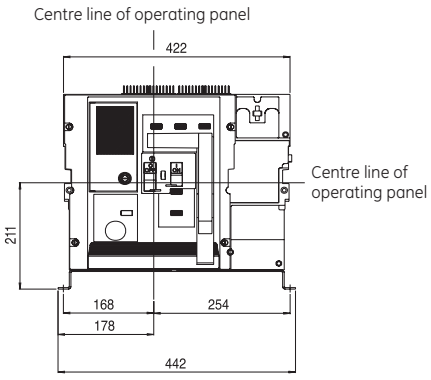


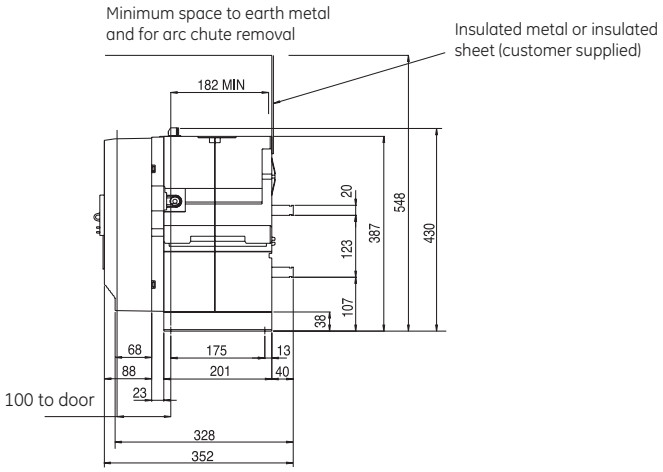


Copperwork must be supported within 200 mm of breaker connections-busbars or cables. All connections to be tightened to 50Nm.

Type N - 4 pole - Frame size 1, In=400A to 1600A





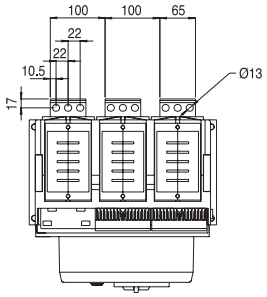


Copperwork must be supported within 200 mm of breaker connections-busbars or cables. All connections to be tightened to 50Nm.

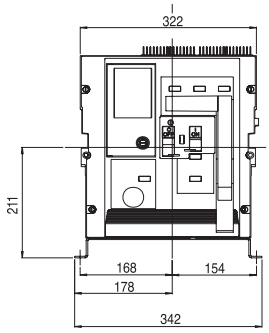
Horizontal, rear access connection

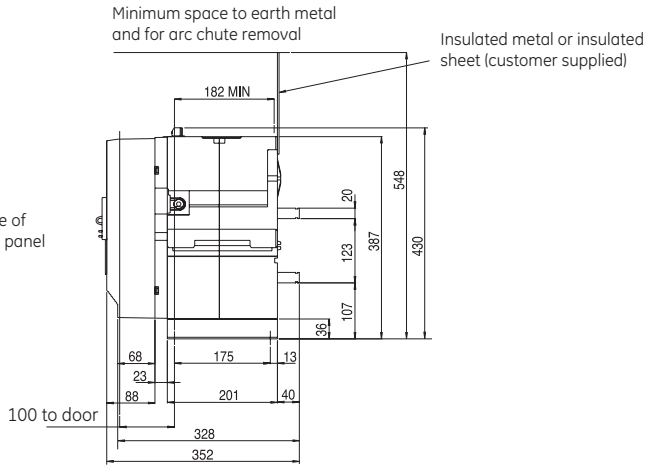
Fixed pattern

Type S, N - 3 pole - Frame size 1, In=2000A to 2500A



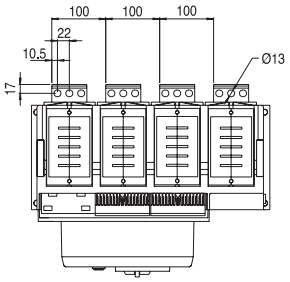
Centre line of operating panel



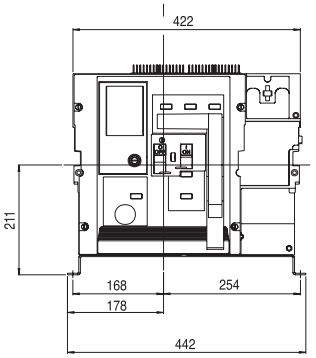


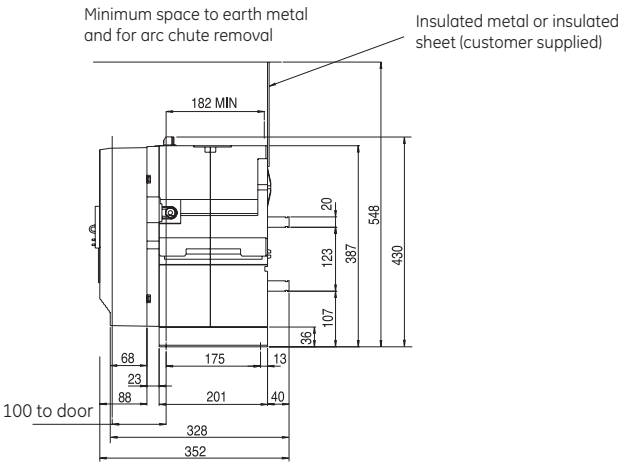
Copperwork must be supported within 200 mm of breaker connections-busbars or cables. All connections to be tightened to 50Nm.

Type S, N - 4 pole - Frame size 1, In=2000A to 2500A



Centre line of operating panel





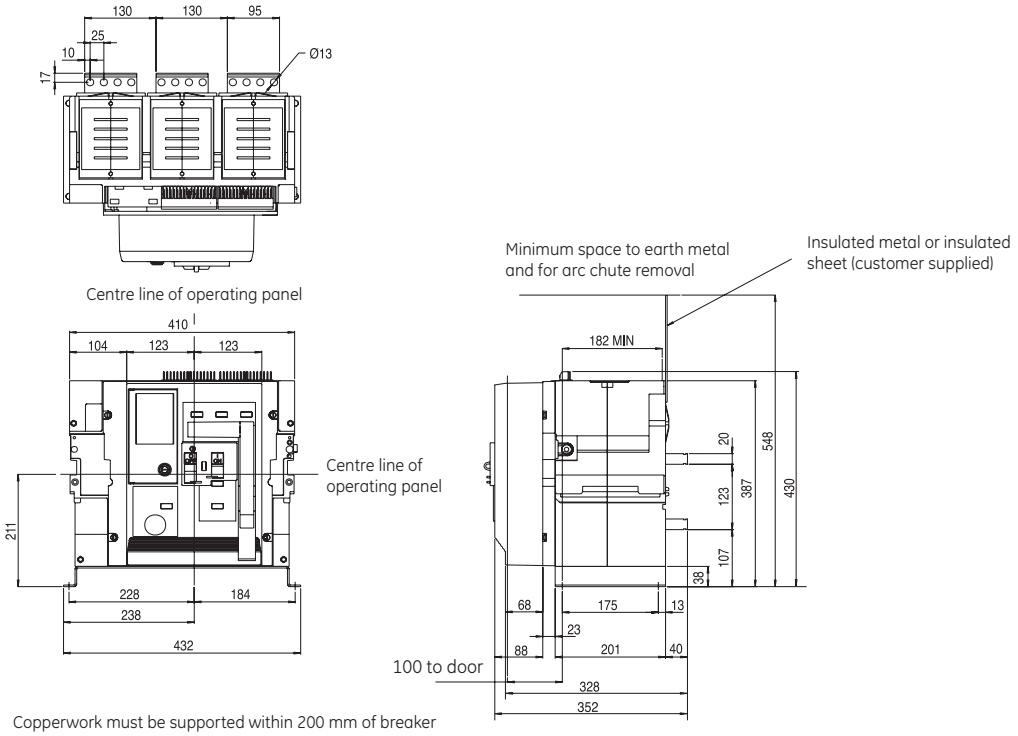
Copperwork must be supported within 200 mm of breaker connections-busbars or cables. All connections to be tightened to 50Nm.

Horizontal, rear access connection

Fixed pattern

Type S, N - 3 pole - Frame size 2, In=3200A to 4000A

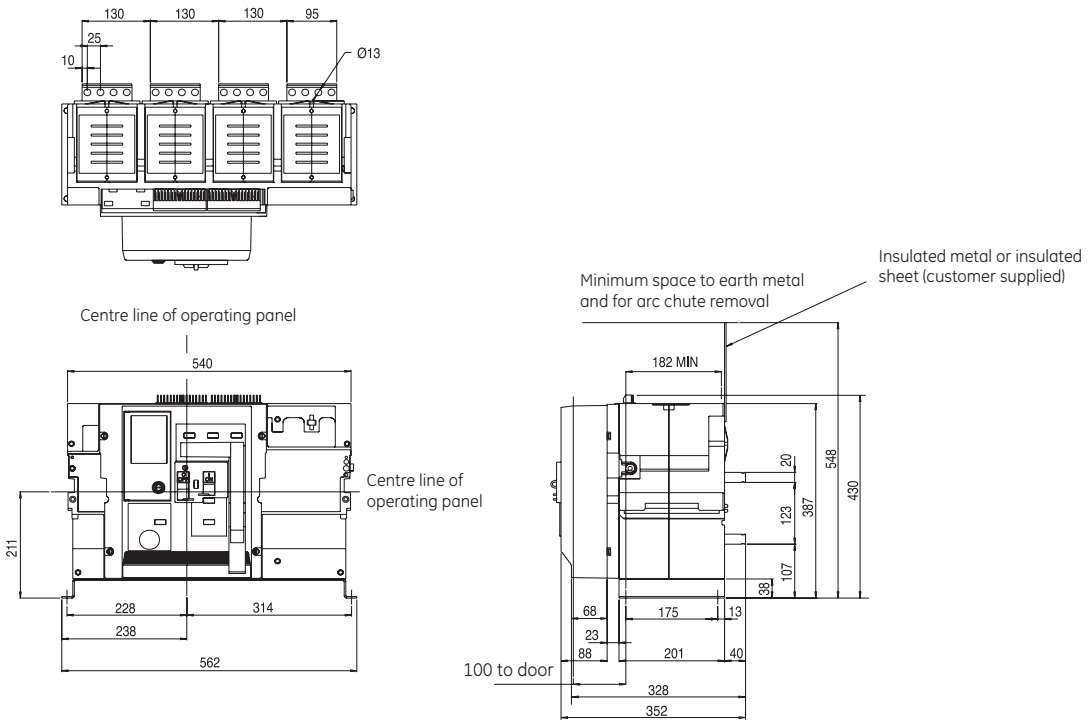
Type H - 3 pole - Frame size 2, In=800A to 4000A



Copperwork must be supported within 200 mm of breaker connections-busbars or cables. All connections to be tightened to 50Nm.

Type S, N - 4 pole - Frame size 2, In=3200A to 4000A

Type H - 4 pole - Frame size 2, In=800A to 4000A

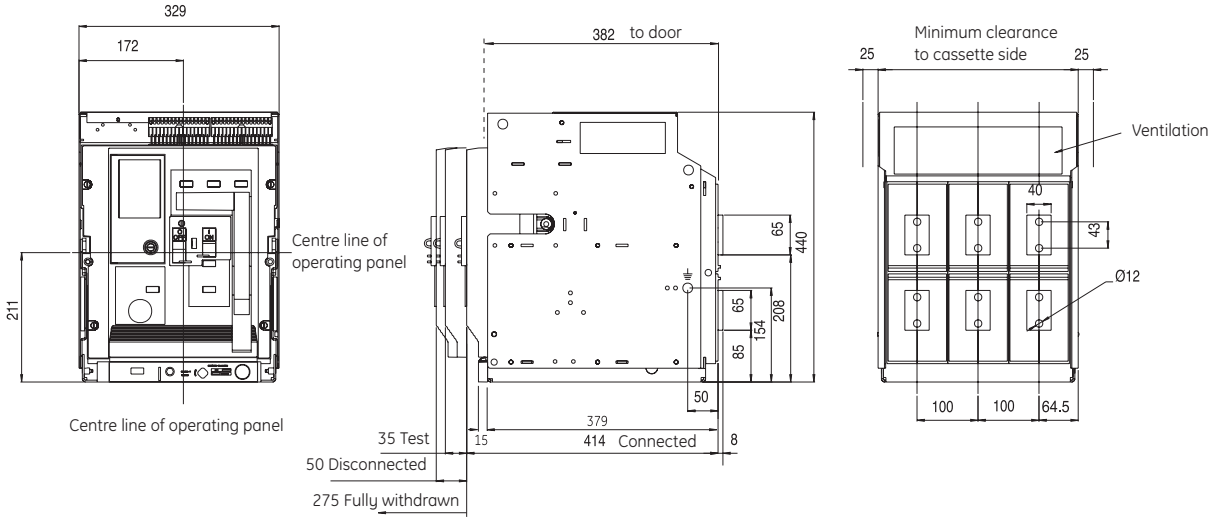


Copperwork must be supported within 200 mm of breaker connections-busbars or cables. All connections to be tightened to 50Nm.

Rear access connection

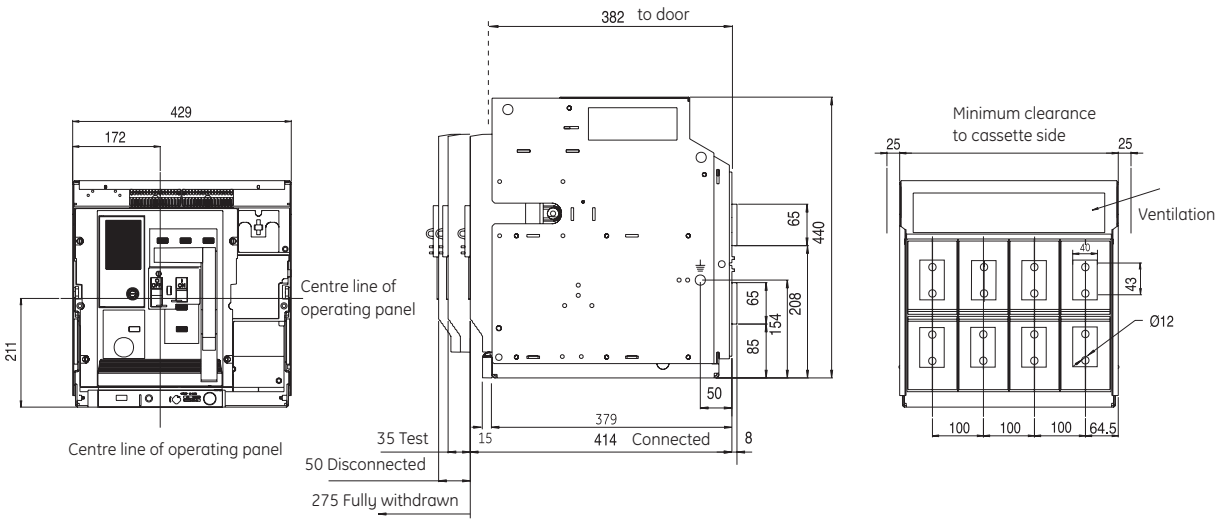
Withdrawable pattern

Type S - 3 pole - Frame size 1, In=400A to 1600A



Copperwork must be supported within 200 mm of breaker connections-busbars or cables. All connections to be tightened to 50Nm.

Type S - 4 pole - Frame size 1, In=400A to 1600A



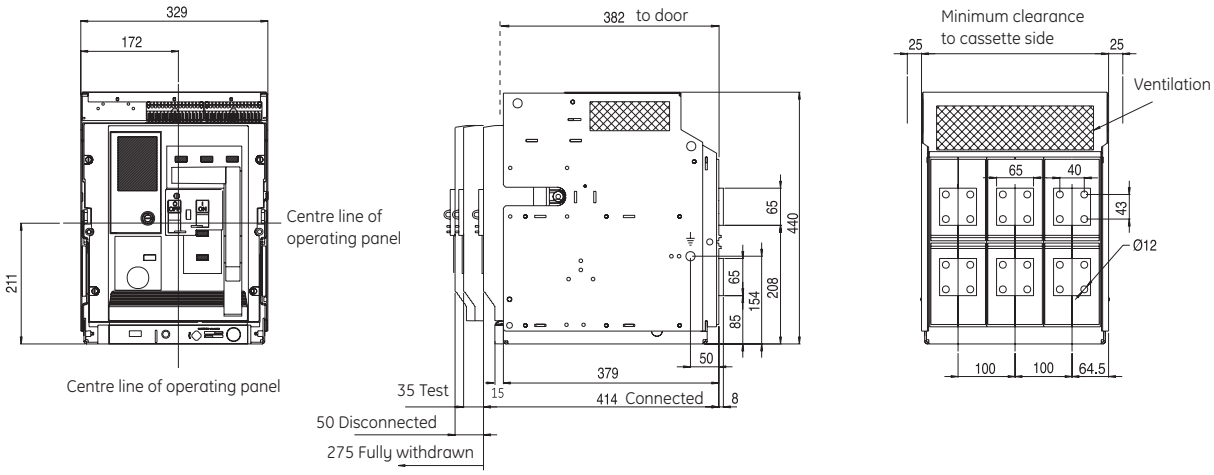
Copperwork must be supported within 200 mm of breaker connections-busbars or cables. All connections to be tightened to 50Nm.

Rear access connection

Withdrawable pattern

Type S - 3 pole - Frame size 1, In=2000A & 2500A

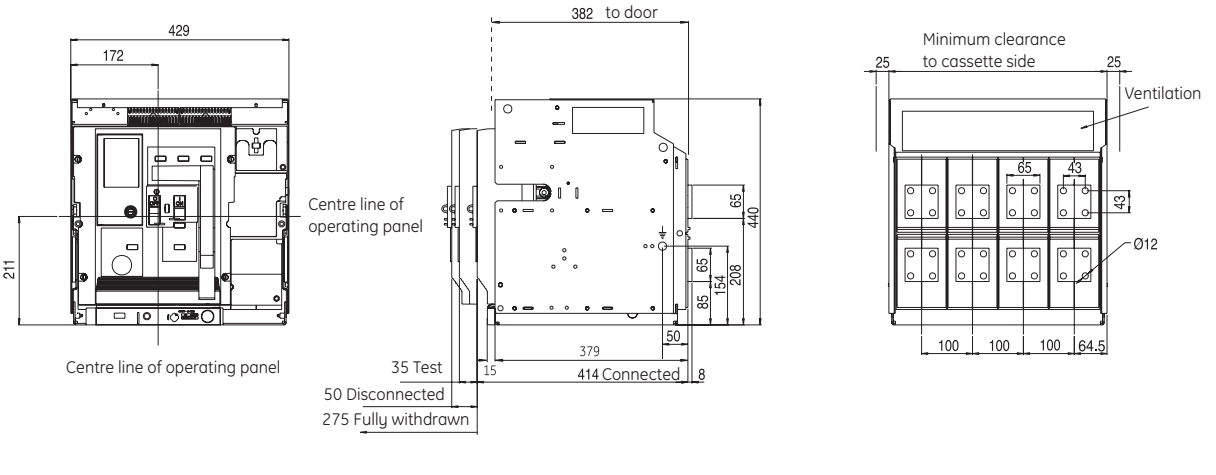
Type N - 3 pole - Frame size 1, In=400A to 2500A



Copperwork must be supported within 200 mm of breaker connections-busbars or cables. All connections to be tightened to 50Nm.

Type S - 4 pole - Frame size 1, In=2000A & 2500A

Type N - 4 pole - Frame size 1, In=400A to 2500A



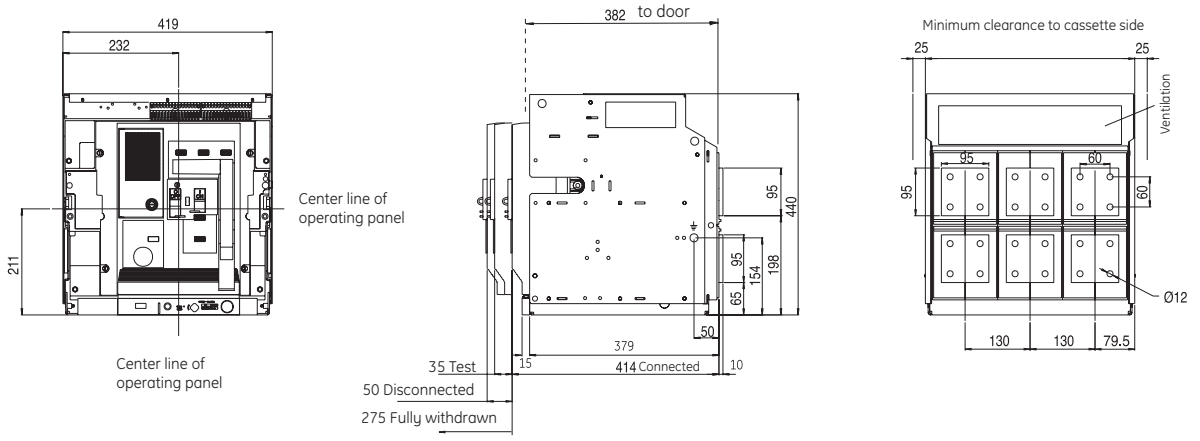
Copperwork must be supported within 200 mm of breaker connections-busbars or cables. All connections to be tightened to 50Nm.

Rear access connection

Withdrawable pattern

Type S, N - 3 pole - Frame size 2, In=3200A

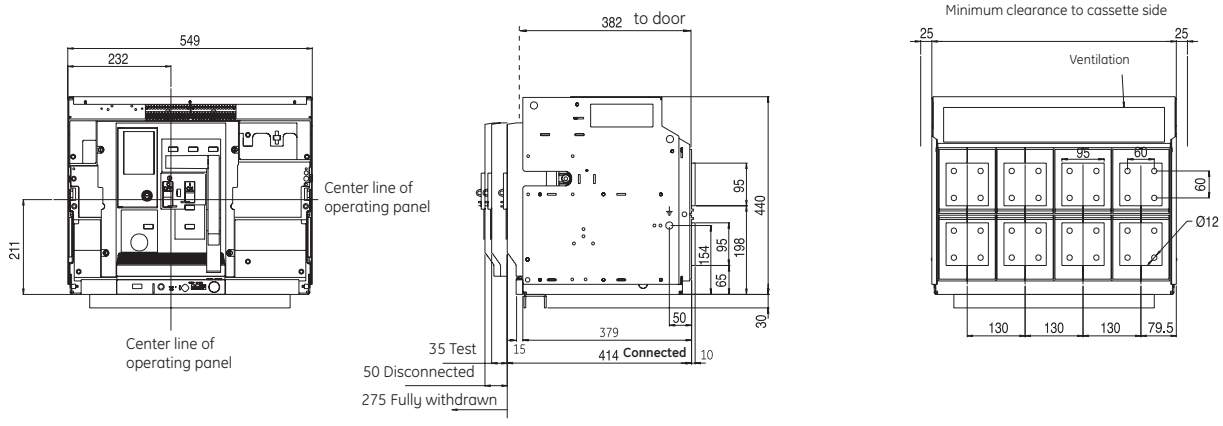
Type H - 3 pole- Frame size 2, In=800A to 3200A



Copperwork must be supported within 200 mm of breaker connections-busbars or cables. All connections to be tightened to 50Nm.

Type S, N - 4 pole - Frame size 2, In=3200A

Type H - 4 pole - Frame size 2, In=800A to 3200A

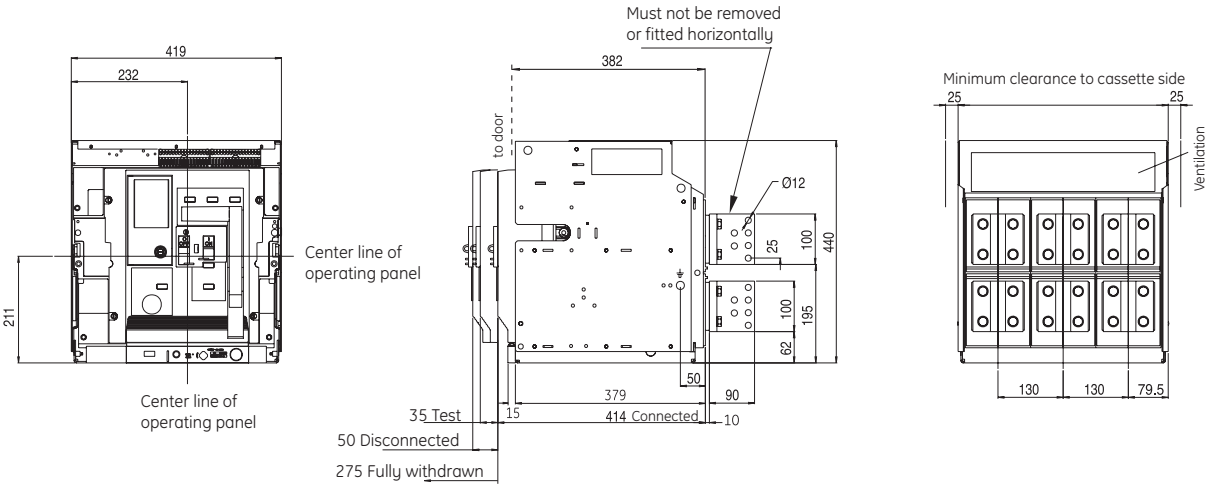


Copperwork must be supported within 200 mm of breaker connections-busbars or cables. All connections to be tightened to 50Nm.

Rear access connection

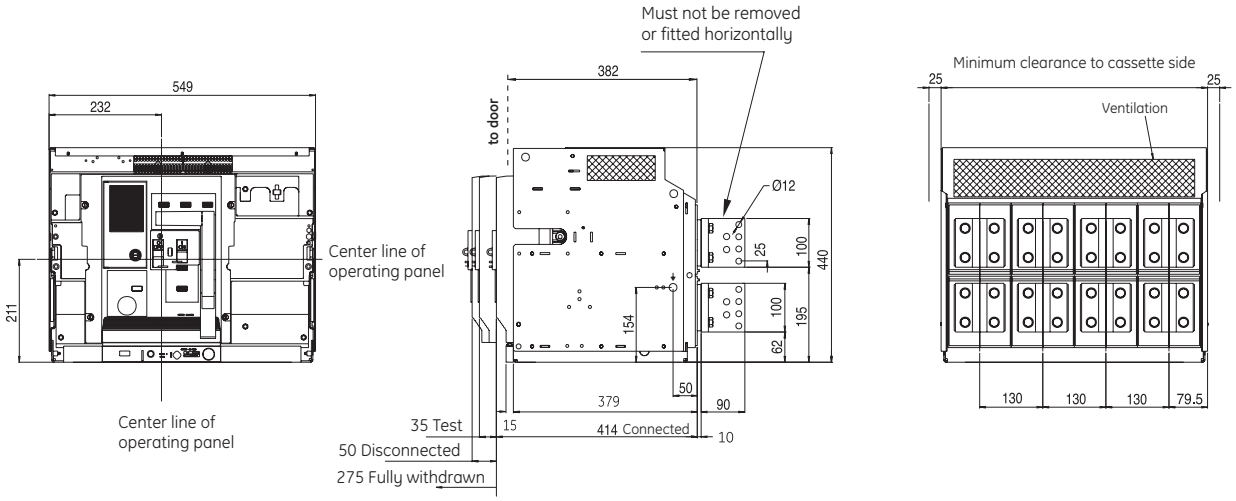
Withdrawable pattern

Type S, N, H - 3 pole - Frame size 2, In=4000A



Copperwork must be supported within 200 mm of breaker connections-busbars or cables. All connections to be tightened to 50Nm.

Type S, N, H - 4 pole - Frame size 2, In=4000A

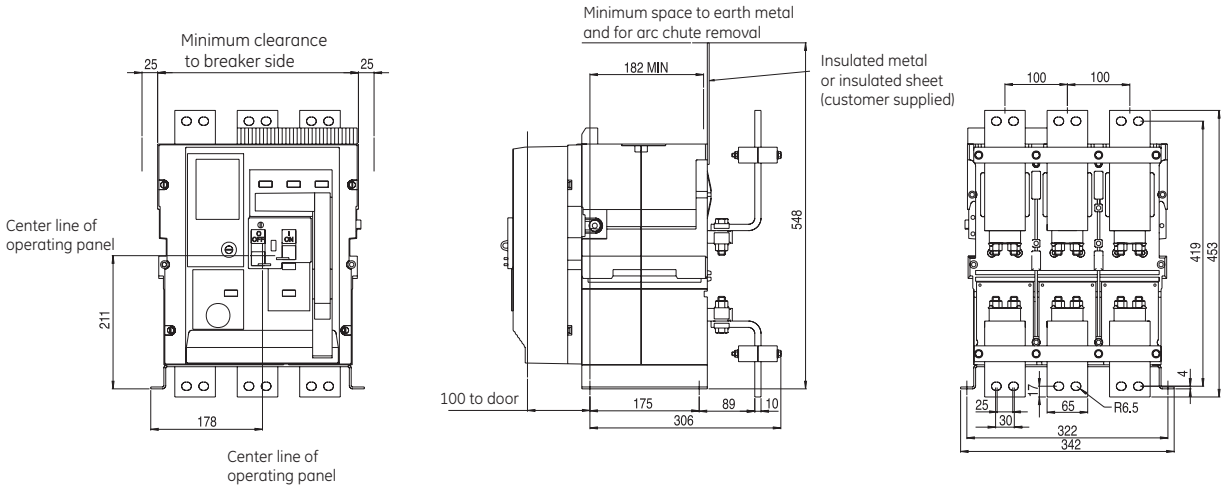


Copperwork must be supported within 200 mm of breaker connections-busbars or cables. All connections to be tightened to 50Nm.

Front access connection

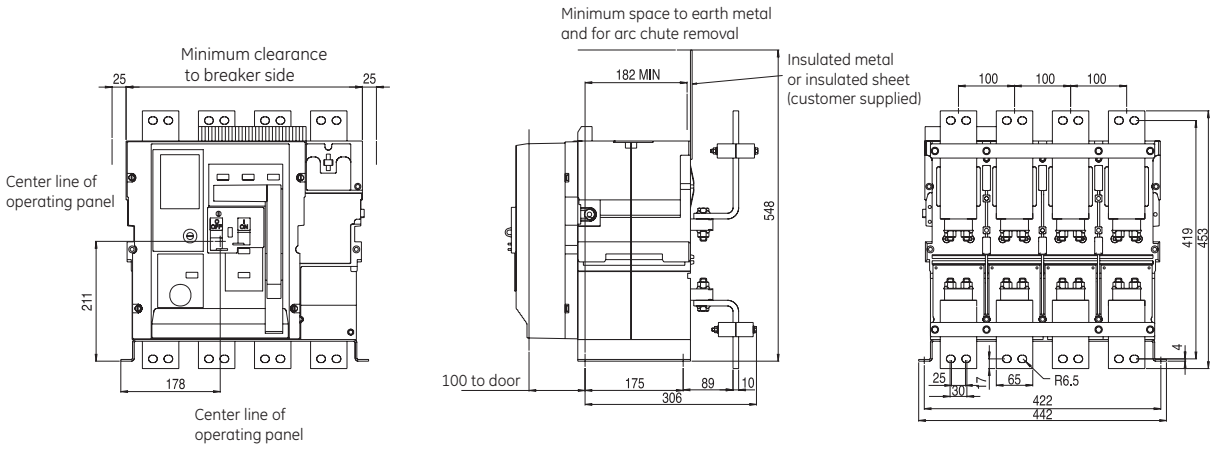
Fixed pattern

Type S, N - 3 pole - Frame size 1, In = 400A to 1600A



Copperwork must be supported within 200 mm of breaker connections-busbars or cables. All connections to be tightened to 50Nm.

Type S, N - 4 pole - Frame size 1, In = 400A to 1600A

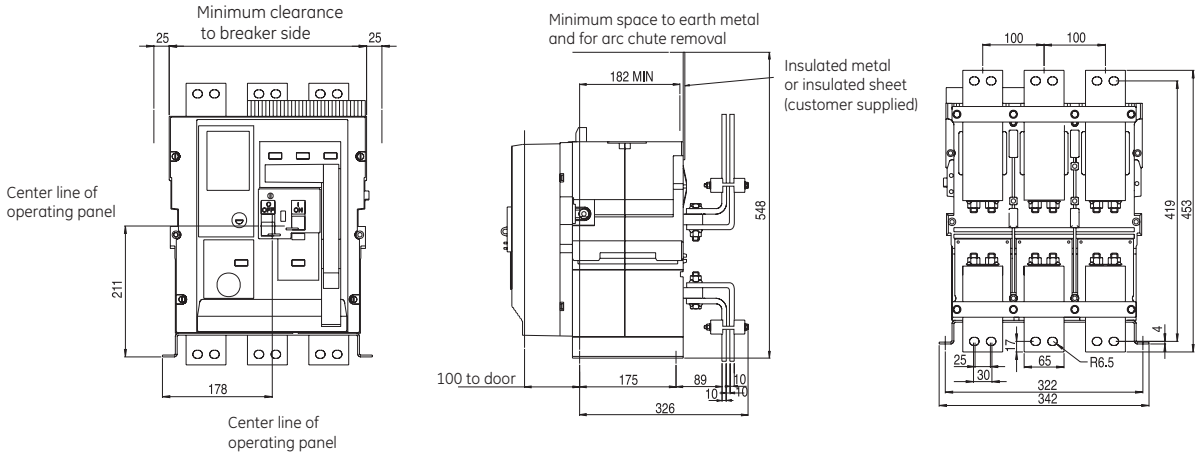


Copperwork must be supported within 200 mm of breaker connections-busbars or cables. All connections to be tightened to 50Nm.

Front access connection

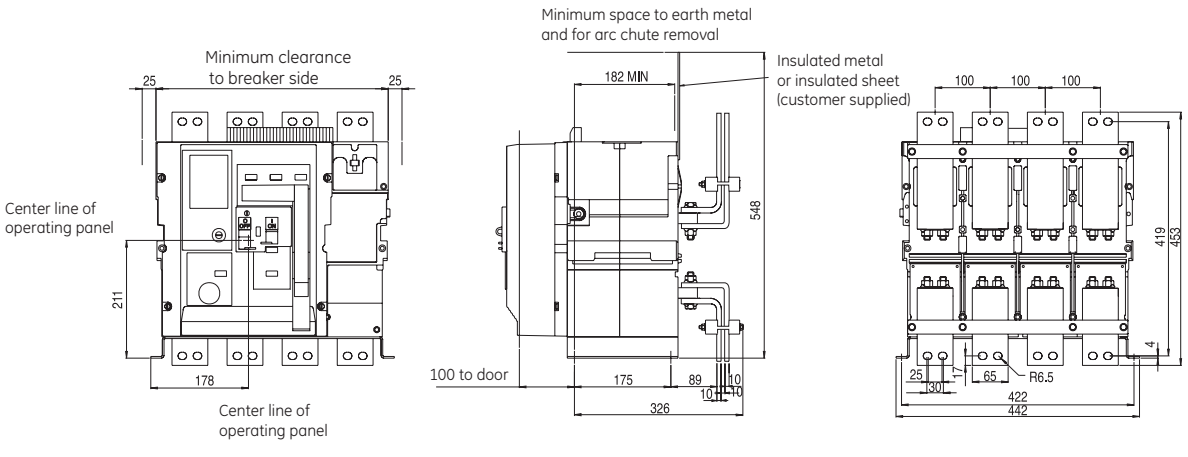
Fixed pattern

Type S, N - 3 pole - Frame size 1, In = 2000A to 2500A



Copperwork must be supported within 200 mm of breaker connections-busbars or cables. All connections to be tightened to 50Nm.

Type S, N - 4 pole - Frame size 1, In = 2000A to 2500A



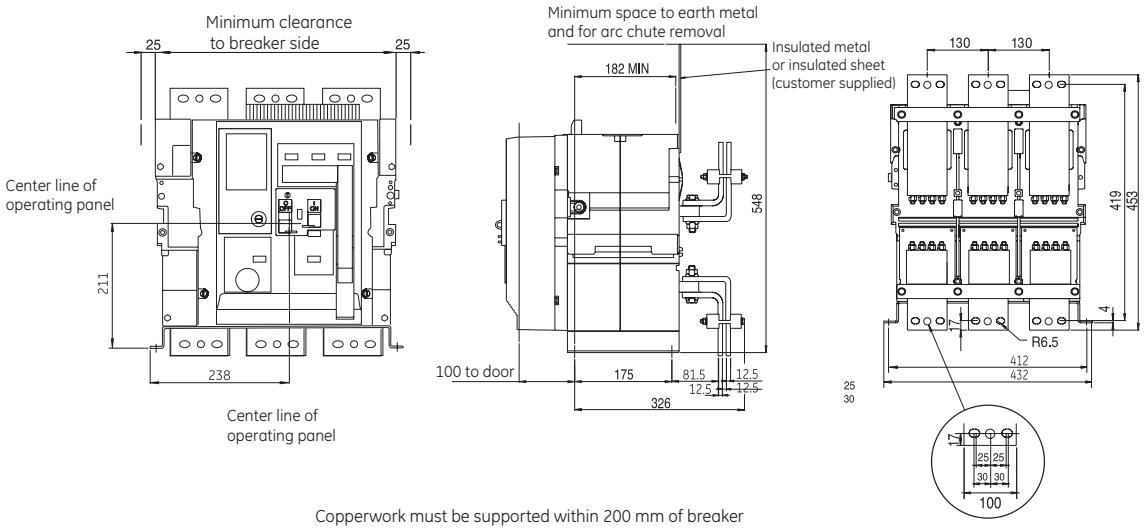
Copperwork must be supported within 200 mm of breaker connections-busbars or cables. All connections to be tightened to 50Nm.

Front access connection

Fixed pattern

Type S, N - 3 pole - Frame size 2, In = 3200A to 4000A

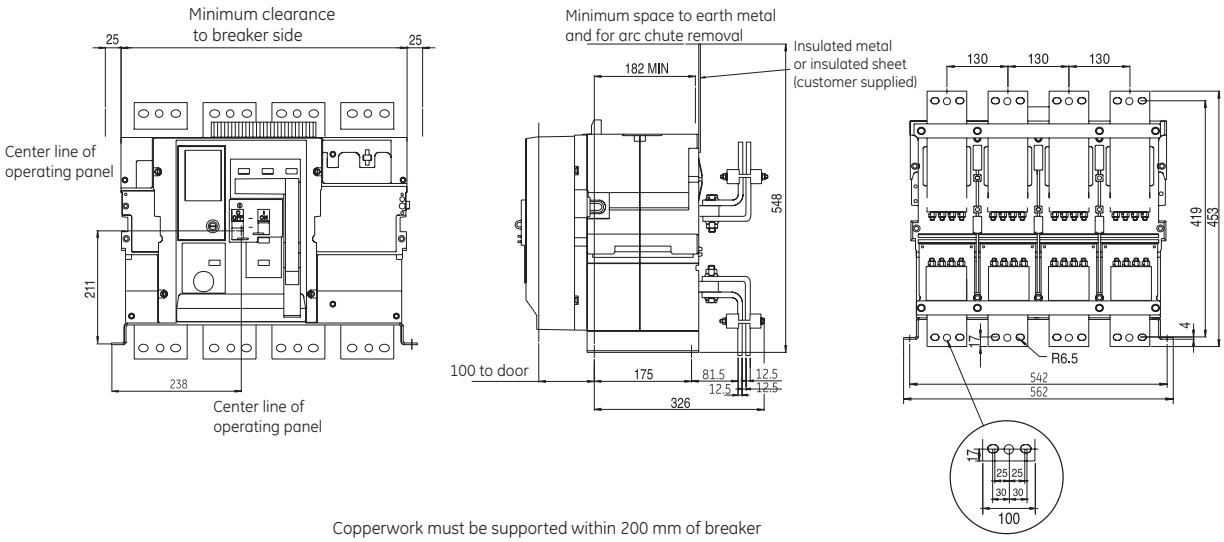
Type H - 3 pole - Frame size 2, In = 800A to 4000A



Copperwork must be supported within 200 mm of breaker connections-busbars or cables. All connections to be tightened to 50Nm.

Type S, N - 4 pole - Frame size 2, In = 3200A to 4000A

Type H - 4 pole - Frame size 2, In = 800A to 4000A

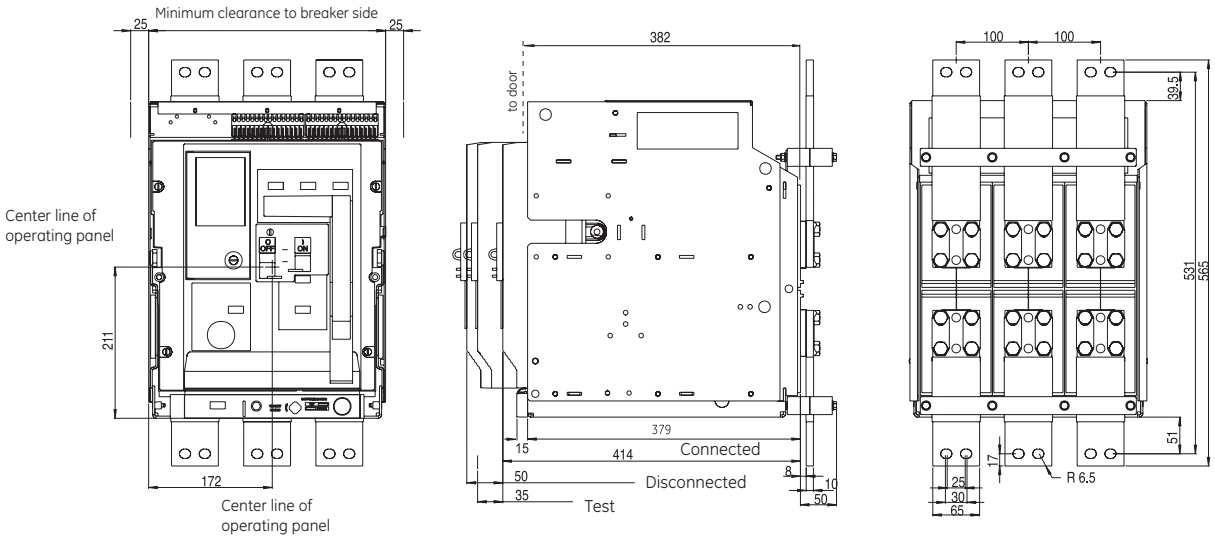


Copperwork must be supported within 200 mm of breaker connections-busbars or cables. All connections to be tightened to 50Nm.

Front access connection

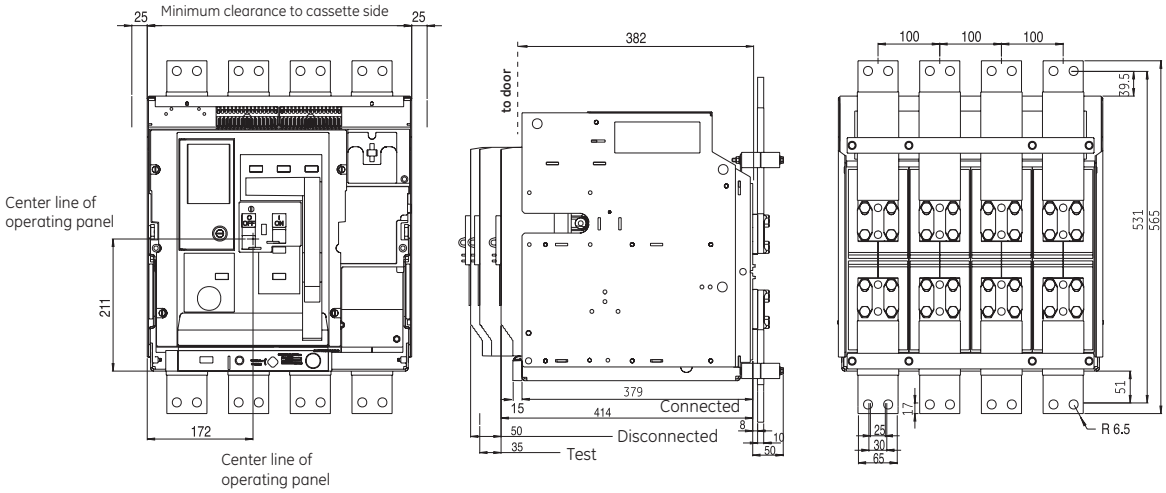
Withdrawable pattern

Type S, N - 3 pole - Frame size 1, In = 400A to 1600A



Copperwork must be supported within 200 mm of breaker connections-busbars or cables. All connections to be tightened to 50Nm.

Type S, N - 4 pole - Frame size 1, In = 400A to 1600A

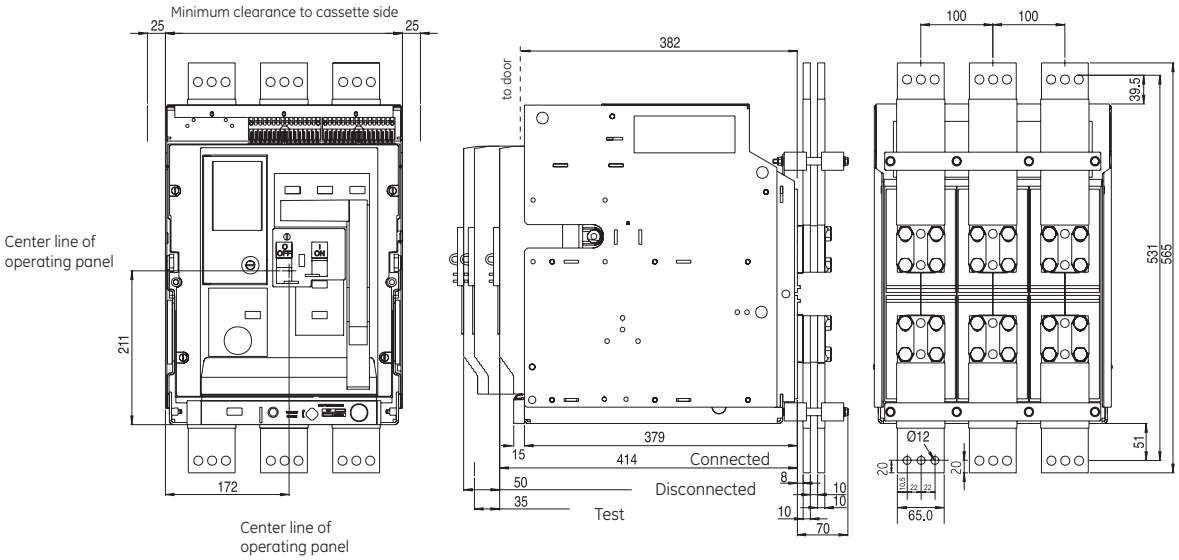


Copperwork must be supported within 200 mm of breaker connections-busbars or cables. All connections to be tightened to 50Nm.

Front access connection

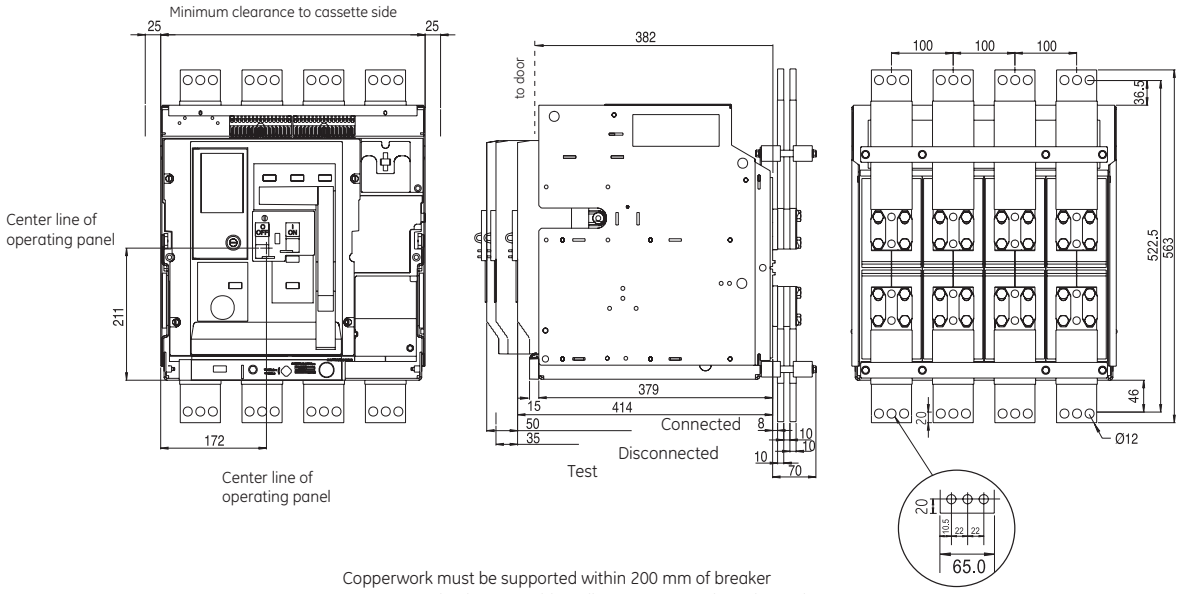
Withdrawable pattern

Type S, N - 3 pole - Frame size 1, In = 2000A to 2500A



Copperwork must be supported within 200 mm of breaker connections-busbars or cables. All connections to be tightened to 50Nm.

Type S, N - 4 pole - Frame size 1, In = 2000A to 2500A



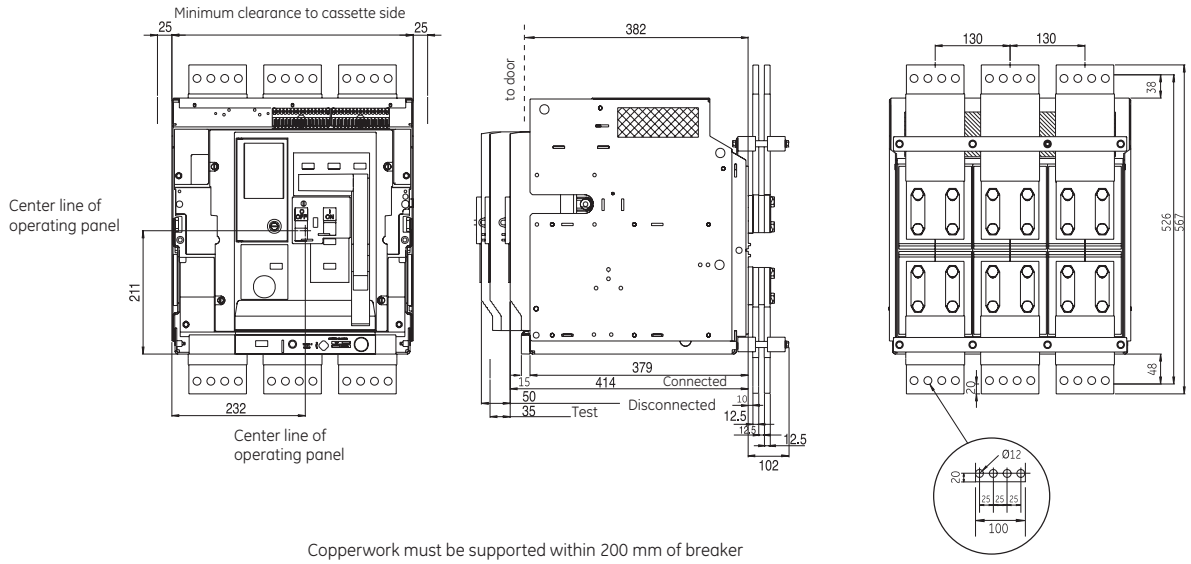
Copperwork must be supported within 200 mm of breaker connections-busbars or cables. All connections to be tightened to 50Nm.

Front access connection

Fixed pattern

Type S, N - 3 pole - Frame size 2, In = 3200A to 4000A

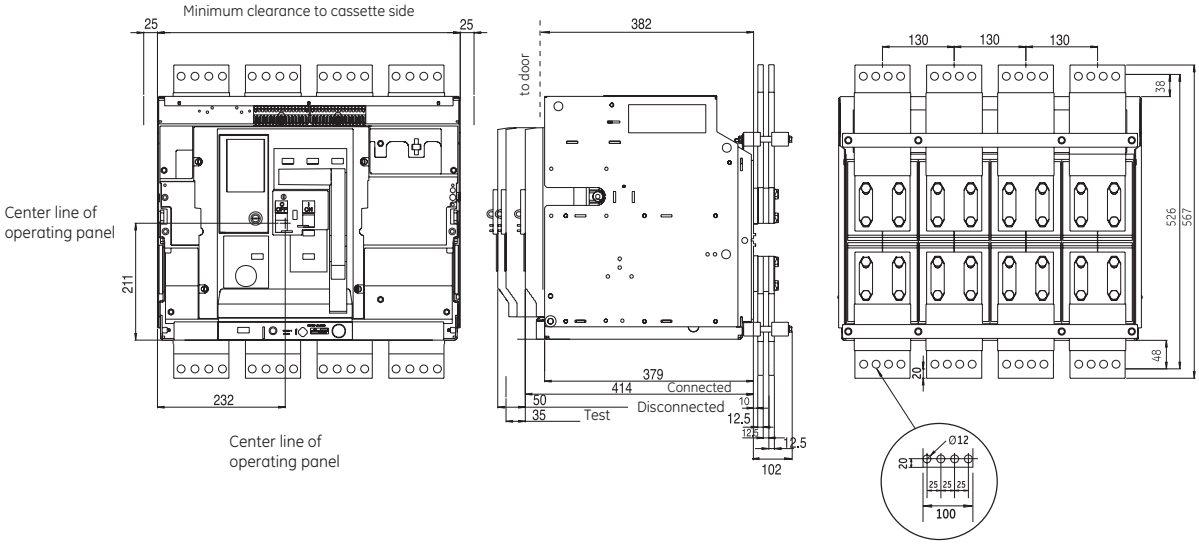
Type H - 3 pole - Frame size 2, In = 800A to 4000A



Copperwork must be supported within 200 mm of breaker connections-busbars or cables. All connections to be tightened to 50Nm.

Type S, N - 4 pole - Frame size 2, In = 3200A to 4000A

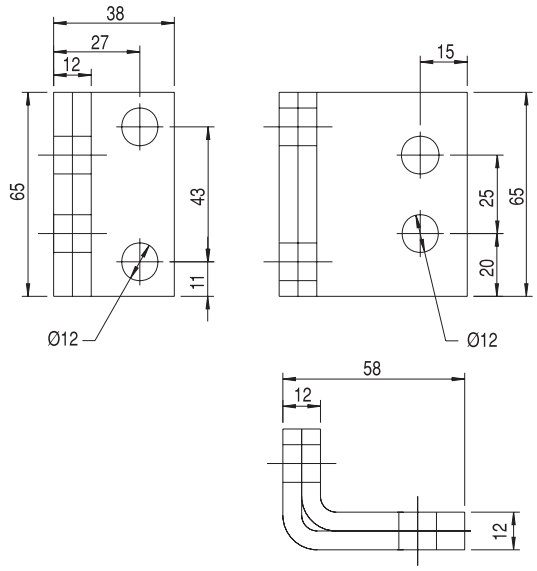
Type H - 4 pole - Frame size 2, In = 800A to 4000A



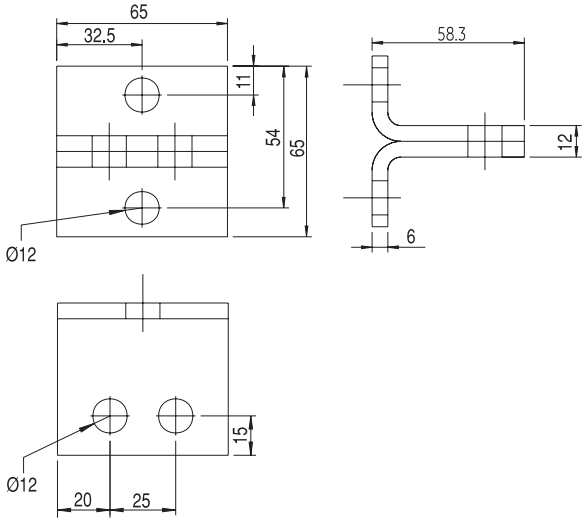
Copperwork must be supported within 200 mm of breaker connections-busbars or cables. All connections to be tightened to 50Nm.

Adaptor connections

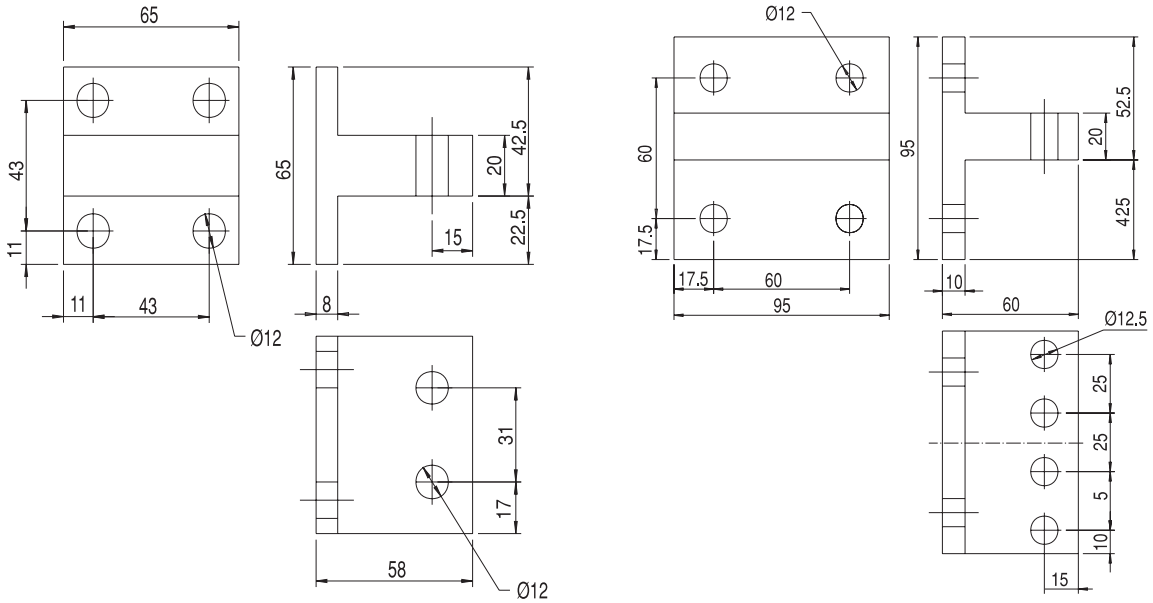
Rear Adapter Vertical Connection



Rear Adapter Horizontal Connection



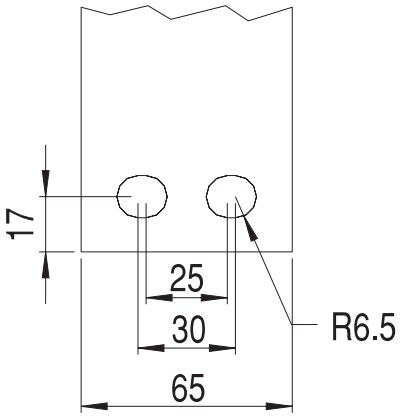
Rear Adapter Vertical / Horizontal Connection



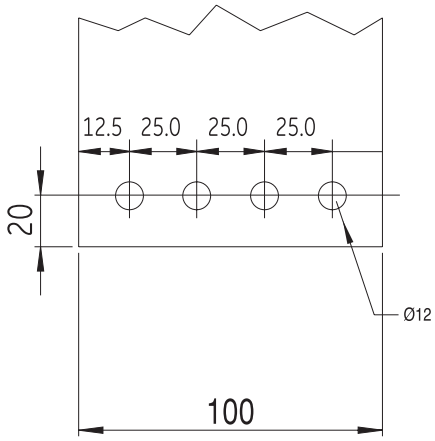
Adaptor connection

Copper connections - Front access (Fixed and/or withdrawable)

Type S - Frame 1 - In = 400A to 2500A (max)
Type N - Frame 1 - In = 400A to 2500A (max)

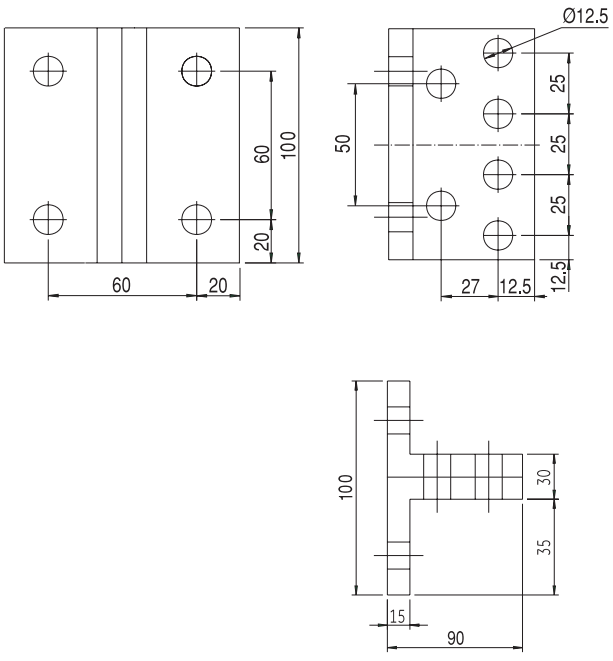


Type S, N - Frame 2 - In = 3200A to 4000A (max)
Type H - Frame 2 - In = 800A to 4000A (max)

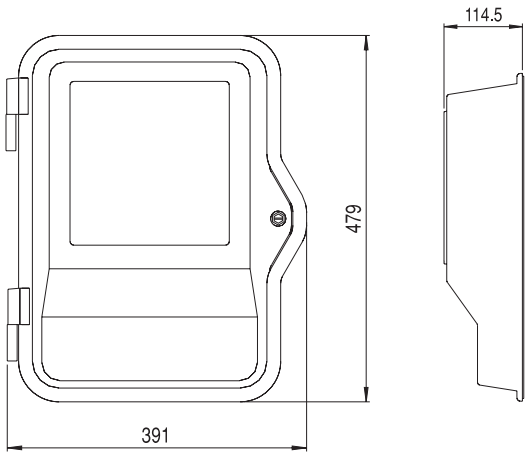


Copper connections - Rear access (withdrawable)

Type S, N, H - Frame 2 - In = 4000A

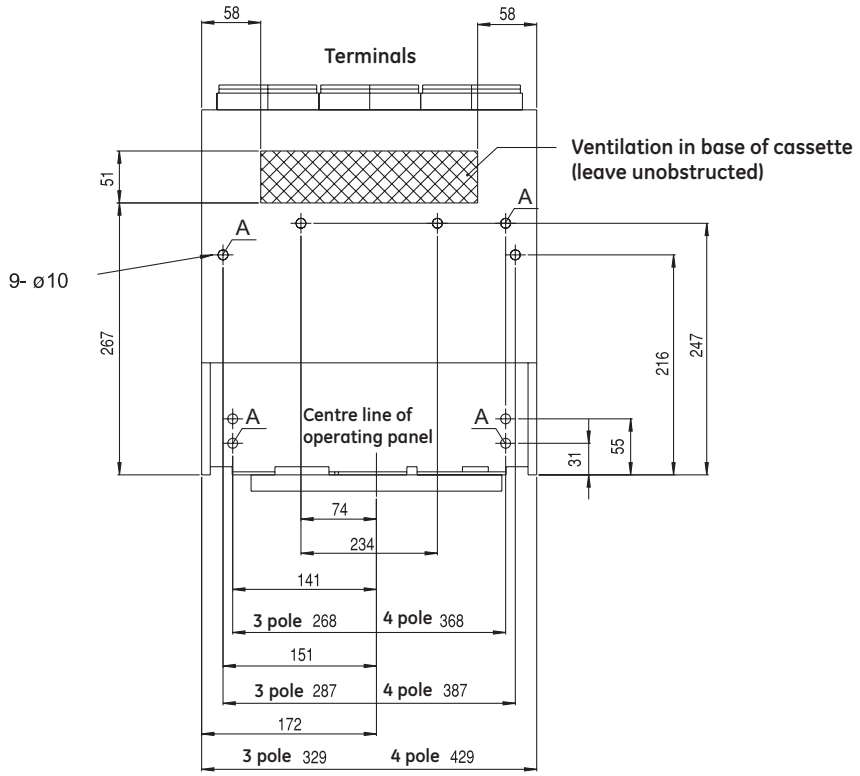


IP54 Door (Withdrawable unit only - Frame 1&2 only)

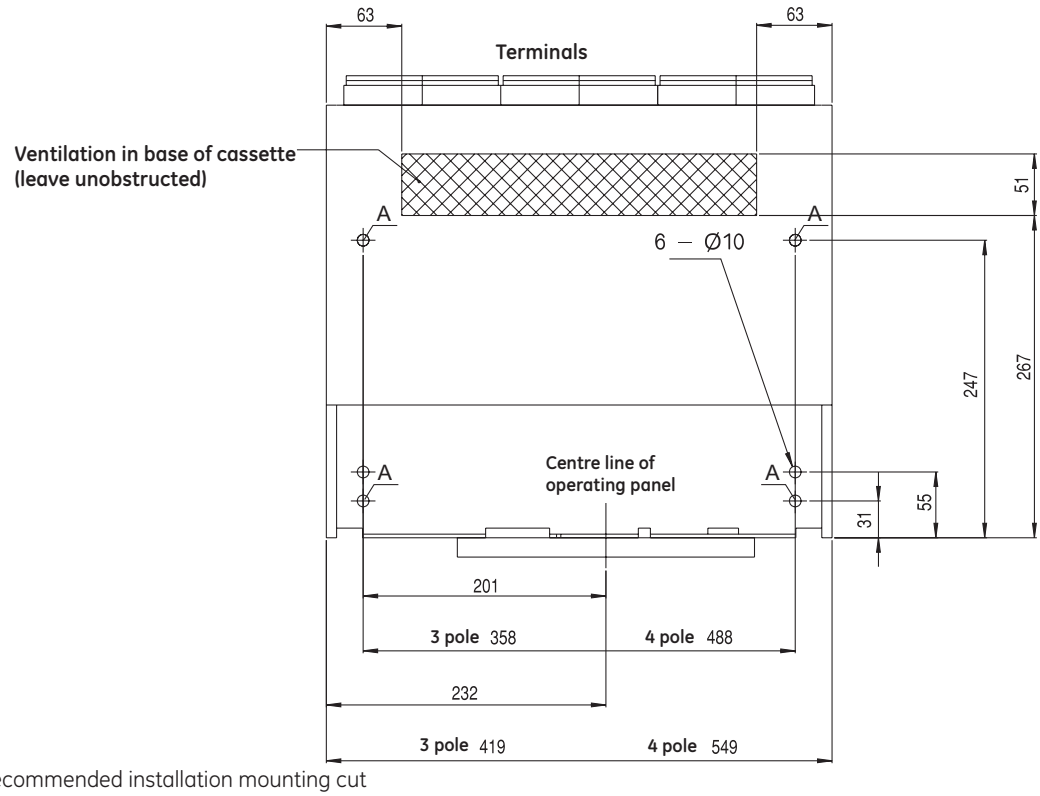


Cassette mounting details

Type S, N - Frame 1 - In = 400A to 2500A (max)



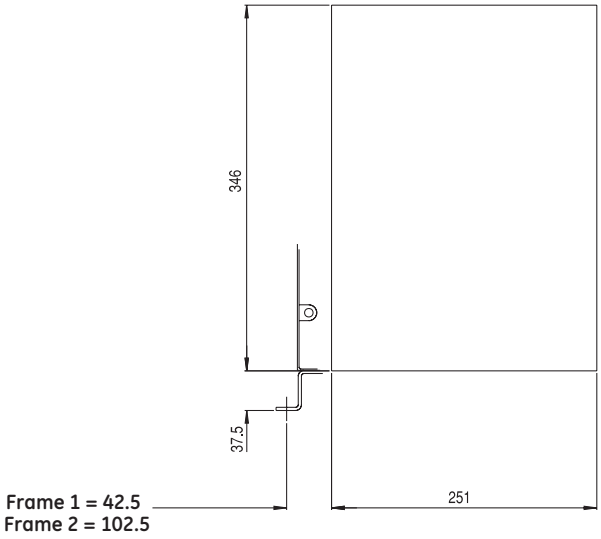
Type S, N - Frame 2 - In = 3200A to 4000A (max)
Type H - Frame 2 - In = 800A to 4000A (max)



A = recommended installation mounting cut

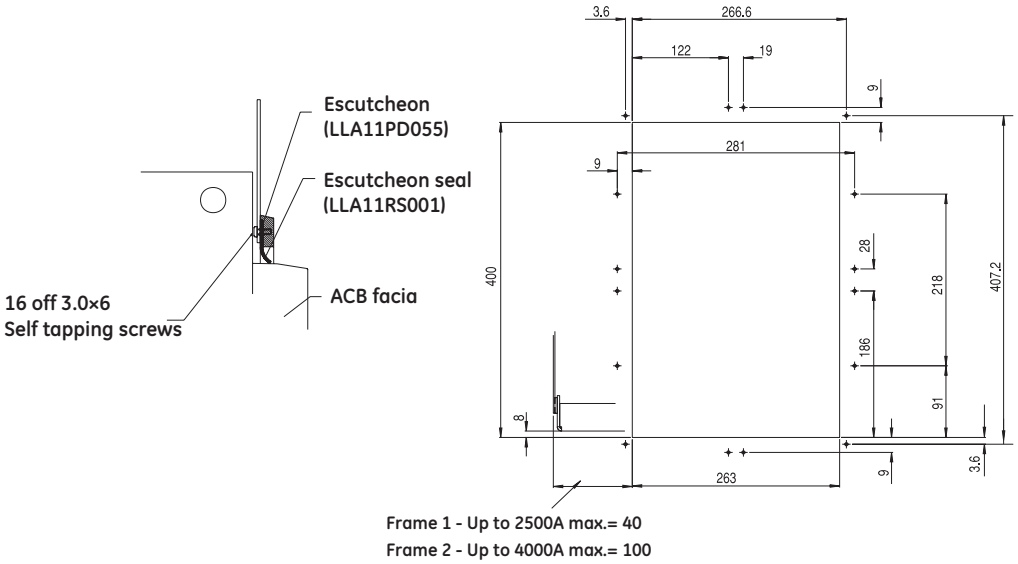
Door cut-outs

Fixed pattern - Facia cut-out



The cut-out dimensions shown above give an approximate nominal clearance of 30mm around ACB fascia. These sizes are for guidance and can be scaled if different aperture is required.

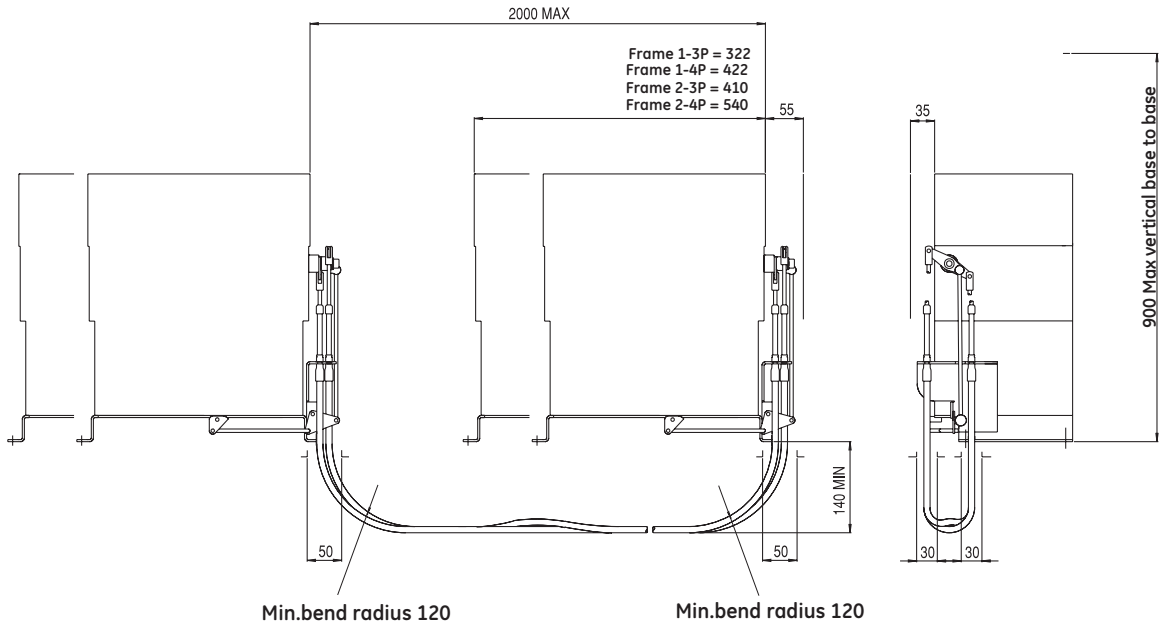
Withdrawable pattern - Cubicle door/panel



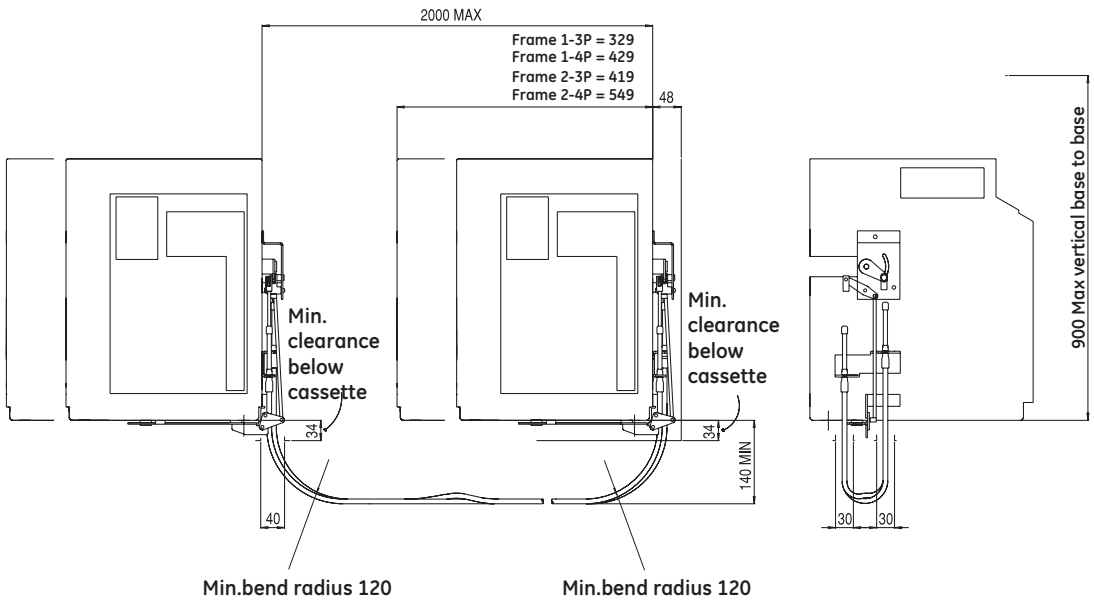
Datum for 16 off ∅4 holes in door / panel - bottom left hand comer of cassette viewed from front.

2-Way cable interlocking

Fixed pattern - Front/rear access



Withdrawable pattern - Front/rear access



Notes

Technical overview A
Order codes B
Wiring diagrams - Dimensional drawings C
Numerical index X

X.2 Numerical index by reference number
X.4 Numerical index by catalogue number

Ref. no.	Cat. no.	Page
403000		
403680	RT1HOR	B.4
403681	RT1VER	B.4
405000		
405102	MS4L1W04	B.4
405103	MS31W04	B.4
405104	MS4L1W06	B.4
405105	MS31W06	B.4
405106	MS4L1W08	B.4
405107	MS31W08	B.4
405108	MS4L1W10	B.4
405109	MS31W10	B.4
405110	MS4L1W12	B.4
405111	MS31W12	B.4
405112	MS4L1W16	B.4
405113	MS31W16	B.4
405114	MS4L1W20	B.4
405115	MS31W20	B.4
405116	MS4L1W25	B.4
405117	MS31W25	B.4
405118	MS4L2W20	B.4
405119	MS32W20	B.4
405120	MS4L2W25	B.4
405121	MS32W25	B.4
405122	MS4L2W32	B.4
405123	MS32W32	B.4
405124	MS4L2W40	B.4
405125	MS32W40	B.4
405132	MS4L1F04	B.4
405133	MS31F04	B.4
405134	MS4L1F06	B.4
405135	MS31F06	B.4
405136	MS4L1F08	B.4
405137	MS31F08	B.4
405138	MS4L1F10	B.4
405139	MS31F10	B.4
405140	MS4L1F12	B.4
405141	MS31F12	B.4
405142	MS4L1F16	B.4
405143	MS31F16	B.4
405144	MS4L1F20	B.4
405145	MS31F20	B.4
405146	MS4L1F25	B.4
405147	MS31F25	B.4
405148	MS4L2F20	B.4
405149	MS32F20	B.4
405150	MS4L2F25	B.4
405151	MS32F25	B.4
405152	MS4L2F32	B.4
405153	MS32F32	B.4
405154	MS4L2F40	B.4
405155	MS32F40	B.4
405162	MN4L1W04	B.8
405163	MN31W04	B.8
405164	MN4L1W06	B.8
405165	MN31W06	B.8
405166	MN4L1W08	B.8
405167	MN31W08	B.8
405168	MN4L1W10	B.8
405169	MN31W10	B.8
405170	MN4L1W12	B.8
405171	MN31W12	B.8
405172	MN4L1W16	B.8
405173	MN31W16	B.8
405174	MN4L1W20	B.8
405175	MN31W20	B.8
405176	MN4L1W25	B.8
405177	MN31W25	B.8
405178	MN4L2W20	B.8
405179	MN32W20	B.8
405180	MN4L2W25	B.8
405181	MN32W25	B.8
405182	MN4L2W32	B.8
405183	MN32W32	B.8
405184	MN4L2W40	B.8
405185	MN32W40	B.8
405186	MS4R1F04-A	B.6
405192	MN4L1F04	B.8
405193	MN31F04	B.8
405194	MN4L1F06	B.8
405195	MN31F06	B.8
405196	MN4L1F08	B.8
405197	MN31F08	B.8
405198	MN4L1F10	B.8
405199	MN31F10	B.8
405200	MN4L1F12	B.8
405201	MN31F12	B.8
405202	MN4L1F16	B.8
405203	MN31F16	B.8
405204	MN4L1F20	B.8
405205	MN31F20	B.8
405206	MN4L1F25	B.8
405207	MN31F25	B.8
405208	MN4L2F20	B.8
405209	MN32F20	B.8
405210	MN4L2F25	B.8
405211	MN32F25	B.8
405212	MN4L2F32	B.8
405213	MN32F32	B.8
405214	MN4L2F40	B.8
405215	MN32F40	B.8
405216	MS4L1F04-A	B.6
405217	MS31F04-A	B.6
405218	MS4L1F06-A	B.6
405219	MS31F06-A	B.6
405226	MH4L2W08	B.12
405227	MH32W08	B.12
405228	MH4L2W10	B.12
405229	MH32W10	B.12
405230	MH4L2W12	B.12
405231	MH32W12	B.12
405232	MH4L2W16	B.12
405233	MH32W16	B.12
405234	MH4L2W20	B.12
405235	MH32W20	B.12
405236	MH4L2W25	B.12
405237	MH32W25	B.12
405238	MS4L1F08-A	B.6
405239	MS31F08-A	B.6
405240	MS4L1F10-A	B.6
405241	MS31F10-A	B.6
405242	MH4L2W32	B.12
405243	MH32W32	B.12
405244	MH4L2W40	B.12
405245	MH32W40	B.12
405246	MS4L1F12-A	B.6
405247	MS31F12-A	B.6
405248	MS4L1F16-A	B.6
405249	MS31F16-A	B.6
405250	MS4L1F20-A	B.6
405251	MS31F20-A	B.6
405252	MS4L1F25-A	B.6
405253	MS31F25-A	B.6
405254	MS4L2F20-A	B.6
405255	MS32F20-A	B.6
405256	MH4L2F08	B.12
405257	MH32F08	B.12
405258	MH4L2F10	B.12
405259	MH32F10	B.12
405260	MH4L2F12	B.12
405261	MH32F12	B.12
405262	MH4L2F16	B.12
405263	MH32F16	B.12
405264	MH4L2F20	B.12
405265	MH32F20	B.12
405266	MH4L2F25	B.12
405267	MH32F25	B.12
405268	MS4L2F25-A	B.6
405269	MS32F25-A	B.6
405270	MS4L2F32-A	B.6
405271	MS32F32-A	B.6
405272	MH4L2F32	B.12
405273	MH32F32	B.12
405274	MH4L2F40	B.12
405275	MH32F40	B.12
405276	MS4L2F40-A	B.6
405277	MS32F40-A	B.6
405278	MS4R1F06-A	B.6
405296	MS4R1F08-A	B.6
405298	MS4R1F10-A	B.6
405316	MS4R1W04	B.4
405318	MS4R1W06	B.4
405320	MS4R1W08	B.4
405322	MS4R1W10	B.4
405324	MS4R1W12	B.4
405326	MS4R1W16	B.4
405328	MS4R1W20	B.4
405330	MS4R1W25	B.4
405332	MS4R2W20	B.4
405334	MS4R2W25	B.4
405336	MS4R2W32	B.4
405338	MS4R2W40	B.4
405340	MS41C16	B.5
405341	MS31C16	B.5
405342	MS41C25	B.5
405343	MS31C25	B.5
405344	MN41C25	B.9
405345	MN31C25	B.9
405346	MN42C32	B.9
405347	MN32C32	B.9
405348	MN42C40	B.9
405349	MN32C40	B.9
405350	MN4L1W04-A	B.10
405351	MN31W04-A	B.10
405352	MN4L1W06-A	B.10
405353	MN31W06-A	B.10
405354	MS42C32	B.5
405355	MS32C32	B.5
405356	MH42C32	B.13
405357	MH32C32	B.13
405358	MH42C40	B.13
405359	MH32C40	B.13
405360	MN4L1W08-A	B.10
405361	MN31W08-A	B.10
405362	MN4L1W10-A	B.10
405363	MN31W10-A	B.10
405364	MS42C40	B.5
405365	MS32C40	B.5
405366	MS4R1F04	B.4
405368	MS4R1F06	B.4
405370	MS4R1F08	B.4
405372	MS4R1F10	B.4
405374	MS4R1F12	B.4
405376	MS4R1F16	B.4
405378	MS4R1F20	B.4
405380	ST30	B.18
405381	MS4R1F25	B.4
405382	ST48	B.18
405384	MS4R2F20	B.4
405386	ST130	B.18
405387	MS4R2F25	B.4
405388	ST250	B.18
405389	ST440	B.18
405390	MS4R1F12-A	B.6
405391	MS4R2F32	B.4
405392	MS4R1F16-A	B.6
405393	MS4R2F40	B.4
405400	UV30	B.18
405402	UV48	B.18
405404	MS4R1F20-A	B.6
405406	UV130A	B.18
405407	UV130D	B.18
405408	UV250	B.18
405409	UV440	B.18
405410	MN4L1W12-A	B.10
405411	UVTD250	B.18
405412	MN31W12-A	B.10
405413	UVTD440	B.18
405414	MN4L1W16-A	B.10
405415	MN31W16-A	B.10
405416	MN4L1W20-A	B.10
405417	MN31W20-A	B.10
405418	MN4L1W25-A	B.10
405419	MN31W25-A	B.10
405420	CC30	B.18
405422	CC48	B.18
405424	MN4L2W20-A	B.10
405425	MN32W20-A	B.10
405426	CC130	B.18
405428	CC250	B.18
405430	MN4R1W04	B.8
405432	MN4R1W06	B.8
405434	MN4R1W08	B.8
405436	MN4R1W10	B.8
405438	MN4R1W12	B.8
405440	MOP30	B.18
405442	MOP48	B.18
405444	MN4L2W25-A	B.10
405445	MN32W25-A	B.10
405446	MOP130A	B.18
405448	MOP250A	B.18
405450	SCC	B.18
405451	2WPFC	B.18
405452	MN4L2W32-A	B.10
405453	MN32W32-A	B.10
405454	MN4L2W40-A	B.10
405455	MN32W40-A	B.10
405456	MN4R1W16	B.8
405458	MN4R1W20	B.8
405459	2WCIF23PW	B.19
405460	MN4R1W25	B.8
405461	2WCIF24PW	B.19
405462	MN4R2W20	B.8
405463	2WCIF23PF	B.19
405464	MN4R2W25	B.8
405465	2WCIF24PF	B.19
405466	MN4R2W32	B.8
405468	MN4R2W40	B.8
405470	MN4R1F04	B.8
405472	MN4R1F06	B.8
405474	MN4R1F08	B.8
405475	B13WCIF23PW	B.19
405476	MN4R1F10	B.8
405477	B13WCIF24PW	B.19
405478	MN4R1F12	B.8
405479	B13WCIF23PF	B.19
405480	MN4R1F16	B.8
405481	B13WCIF24PF	B.19
405482	MN4R1F20	B.8
405484	MN4R1F25	B.8
405486	MN4R2F20	B.8
405488	MN4R2F25	B.8
405490	MN4R2F32	B.8
405491	C23WCIF23PW	B.19
405492	MN4R2F40	B.8
405493	C23WCIF24PW	B.19
405494	MH4R2W08	B.12
405495	C23WCIF23PF	B.19
405496	MH4R2W10	B.12
405497	C23WCIF24PF	B.19
405498	MH4R2W12	B.12
405500	MH4R2W16	B.12
405502	MH4R2W20	B.12
405504	MH4R2W25	B.12
405505	ACBMIL	B.19
405506	MH4R2W32	B.12
405508	MH4R2W40	B.12
405509	MH4R2F08	B.12
405510	MH4R2F10	B.12
405511	D13WCIF23PW	B.19
405512	MH4R2F12	B.12
405513	D13WCIF24PW	B.19
405514	MH4R2F16	B.12
405515	D13WCIF23PF	B.19
405516	MH4R2F20	B.12
405517	D13WCIF24PF	B.19
405518	MH4R2F25	B.12
405520	MH4R2F32	B.12
405522	MH4R2F40	B.12
405524	MS4R1M04	B.5
405526	MS4R1M06	B.5
405528	MS4R1M08	B.5
405531	100BCMCI	B.19
405532	160BCMCI	B.19
405533	200BCMCI	B.19
405542	MS4R1M10	B.5
405547	MPROAPU	B.16
405548	MS4R1M12	B.5
405553	FA32WH32B	B.12
405554	FA42WH32B	B.12
405555	FA32WH40B	B.12
405556	FA42WH40B	B.12
405557	FA31FN16B	B.9
405558	FA41FN16B	B.9
405559	FA31FN25B	B.9
405560	FA41FN25B	B.9
405561	FA32FN32B	B.9
405562	FA42FN32B	B.9
405563	FA32FN40B	B.9
405564	FA42FN40B	B.9
405565	FA32FH32B	B.12
405566	FA42FH32B	B.12
405567	FA32FH40B	B.12
405568	FA42FH40B	B.12
405569	FORLOK	B.19
405570	CASLOK	B.19
405571	RONLOK	B.19
405572	PROLOK	B.19
405573	RONCAS	B.19
405574	PROCAS	B.19
405576	MOC	B.19
405578	DILHS	B.19
405579	DIRHS	B.19
405580	CSWFF	B.18
405581	CSWL	B.18
405582	MS4R1M16	B.5
405584	MS4R1M20	B.5
405586	MS4R1M25	B.5
405588	MS4R2M20	B.5
405590	MS4R2M25	B.5
405592	MS4R2M32	B.5
405594	MS4R2M40	B.5
405596	MN4R1M04	B.9
405598	MN4R1M06	B.9
405600	RT1UNI	B.4
405601	RT2UNI	B.4

Ref. no.	Cat. no.	Page
405602	MN4R1M08	B.9
405603	RT1SVFIX	B.4
405604	MN4R1M10	B.9
405605	ACBMID	B.19
405606	IP54DOOR	B.19
405607	ACBLIFT	B.19
405609	RT1SNVFIX	B.4
405610	250BCMCI	B.19
405611	300BCMCI	B.19
405612	350BCMCI	B.19
405613	400BCMCI	B.19
405621	RT2SNHVFIX	B.4
405622	MN4R1M12	B.9
405624	MN4R1M16	B.9
405626	MN4R1M20	B.9
405628	MN4R1M25	B.9
405630	MN4R2M20	B.9
405632	MN4R2M25	B.9
405634	MN4R2M32	B.9
405636	MN4R2M40	B.9
405638	MH4R2M08	B.13
405640	MH4R2M10	B.13
405642	MH4R2M12	B.13
405644	MH4R2M16	B.13
405646	MH4R2M20	B.13
405648	MH4R2M25	B.13
405650	MH4R2M32	B.13
405652	MH4R2M40	B.13
405656	MN4L1F04-A	B.10
405657	MN31F04-A	B.10
405658	MN4L1F06-A	B.10
405659	MN31F06-A	B.10
405660	EDF14P16	B.5
405661	EDF13P16	B.5
405662	EDF14P25	B.5
405663	EDF13P25	B.5
405664	EDF24P40	B.5
405665	EDF23P40	B.5
405666	FXWD31N16	B.18
405667	FXWD31S16	B.18
405668	FXWD31SN25	B.18
405669	FXWD32SNH32	B.18
405670	FXWD32SNH40	B.18
405671	FXWD41S16	B.18
405672	FXWD41SN25	B.18
405673	FXWD42SNH32	B.18
405674	FXWD42SNH40	B.18
405680	MN4L1F08-A	B.10
405681	MN31F08-A	B.10
405682	MS4R1F25-A	B.6
405683	ELCT8001	B.20
405684	ELCT10001	B.20
405685	ELCT12501	B.20
405686	ELCT16001	B.20
405687	ELCT20001	B.20
405688	ELCT25001	B.20
405689	ELCT32002	B.20
405690	ELCT40002	B.20
405703	RCMK8001	B.20
405704	RCMK10001	B.20
405705	RCMK12501	B.20
405706	RCMK16001	B.20
405707	RCMK20001	B.20
405708	RCMK25001	B.20
405709	RCMK32002	B.20
405710	RCMK40002	B.20
405712	MS4R2F20-A	B.6
405713	ELCT8002	B.20
405714	ELCT10002	B.20
405715	ELCT12502	B.20
405716	ELCT16002	B.20
405717	ELCT20002	B.20
405718	ELCT25002	B.20
405720	MN4L1F10-A	B.10
405721	MN31F10-A	B.10
405722	MS4R2F25-A	B.6
405723	RCMK8002	B.20
405724	RCMK10002	B.20
405725	RCMK12502	B.20
405726	RCMK16002	B.20
405727	RCMK20002	B.20
405728	RCMK25002	B.20
405730	MN4L1F12-A	B.10
405731	MN31F12-A	B.10
405732	MN4L1F16-A	B.10
405733	MN31F16-A	B.10
405734	MN4L1F20-A	B.10
405735	MN31F20-A	B.10
405736	MN4L1F25-A	B.10
405737	MN31F25-A	B.10
405738	FACS116	B.20
405739	MACS116	B.20
405740	FACN116	B.20
405741	MACN116	B.20
405742	FAC125	B.20
405743	MAC125	B.20
405744	FAC232	B.20
405745	MAC232	B.20
405746	FAC240	B.20
405747	MAC240	B.20
405748	MS4R2F32-A	B.6
405769	CLCS116	B.20
405770	CLCN116	B.20
405771	CLC125	B.20
405772	CLC232	B.20
405773	CLC240	B.20
405778	MN4L2F20-A	B.10
405779	MN32F20-A	B.10
405780	MN4L2F25-A	B.10
405781	MN32F25-A	B.10
405782	MN4L2F32-A	B.10
405783	MN32F32-A	B.10
405784	MN4L2F40-A	B.10
405785	MN32F40-A	B.10
405786	MS4R2F40-A	B.6
405787	ARC16	B.20
405788	ARC32H	B.20
405789	ARC40H	B.20
405790	ARC25	B.20
405791	ARC32SN	B.20
405792	ARC40SN	B.20
405796	MH4L2W08-A	B.14
405797	MH32W08-A	B.14
405798	MH4L2W12-A	B.14
405799	MH32W10-A	B.14
405800	UNIPLIER	B.20
405801	MH32W12-A	B.14
405802	MH4L2W10-A	B.14
405803	MS31M04	B.5
405804	MS4L1M04	B.5
405805	MS31M06	B.5
405806	MS4L1M06	B.5
405807	MS31M08	B.5
405808	MS4L1M08	B.5
405809	MS31M10	B.5
405810	MS4L1M10	B.5
405811	MS31M12	B.5
405812	MS4L1M12	B.5
405813	MS31M16	B.5
405814	MS4L1M16	B.5
405815	MS31M20	B.5
405816	MS4L1M20	B.5
405817	MS31M25	B.5
405818	MS4L1M25	B.5
405819	MS32M20	B.5
405820	MS4L2M20	B.5
405821	MS32M25	B.5
405822	MS4L2M25	B.5
405823	MS32M32	B.5
405824	MS4L2M32	B.5
405825	MS32M40	B.5
405826	MS4L2M40	B.5
405828	MH4L2W16-A	B.14
405829	MH32W16-A	B.14
405830	MH4L2W20-A	B.14
405831	MH32W20-A	B.14
405832	MN4R1W04-A	B.10
405833	MN31M04	B.9
405834	MN4L1M04	B.9
405835	MN31M06	B.9
405836	MN4L1M06	B.9
405837	MN31M08	B.9
405838	MN4L1M08	B.9
405839	MN31M10	B.9
405840	MN4L1M10	B.9
405841	MN31M12	B.9
405842	MN4L1M12	B.9
405843	MN31M16	B.9
405844	MN4L1M16	B.9
405845	MN31M20	B.9
405846	MN4L1M20	B.9
405847	MN31M25	B.9
405848	MN4L1M25	B.9
405849	MN32M20	B.9
405850	MN4L2M20	B.9
405851	MN32M25	B.9
405852	MN4L2M25	B.9
405853	MN32M32	B.9
405854	MN4L2M32	B.9
405855	MN32M40	B.9
405856	MN4L2M40	B.9
405858	MH4L2W25-A	B.14
405859	MH32W25-A	B.14
405860	MH4L2W32-A	B.14
405861	MH32W32-A	B.14
405862	MH4L2W40-A	B.14
405863	MH32W40-A	B.14
405864	MN4R1W06-A	B.10
405866	MN4R1W08-A	B.10
405867	MH32M08	B.13
405868	MH4L2M08	B.13
405869	MH32M10	B.13
405870	MH4L2M10	B.13
405871	MH32M12	B.13
405872	MH4L2M12	B.13
405873	MH32M16	B.13
405874	MH4L2M16	B.13
405875	MH32M20	B.13
405876	MH4L2M20	B.13
405877	MH32M25	B.13
405878	MH4L2M25	B.13
405880	MH4L2F08-A	B.14
405881	MH32F08-A	B.14
405882	MN4R1W10-A	B.10
405883	MH32M32	B.13
405884	MH4L2M32	B.13
405885	MH32M40	B.13
405886	MH4L2M40	B.13
405888	MH4L2F10-A	B.14
405889	MH32F10-A	B.14
405890	MH4L2F12-A	B.14
405891	MH32F12-A	B.14
405892	MH4L2F16-A	B.14
405893	MH32F16-A	B.14
405894	MH4L2F20-A	B.14
405895	MH32F20-A	B.14
405896	MH4L2F25-A	B.14
405897	MH32F25-A	B.14
405898	MH4L2F32-A	B.14
405899	MH32F32-A	B.14
405900	MH4L2F40-A	B.14
405901	MH32F40-A	B.14
405902	MN4R1W12-A	B.10
405904	MN4R1W16-A	B.10
405905	MS31M04-A	B.7
405906	MS4L1M04-A	B.7
405907	MS31M06-A	B.7
405908	MS4L1M06-A	B.7
405909	MS31M08-A	B.7
405910	MS4L1M08-A	B.7
405911	MS31M10-A	B.7
405912	MS4L1M10-A	B.7
405913	MS31M12-A	B.7
405914	MS4L1M12-A	B.7
405915	MS31M16-A	B.7
405916	MS4L1M16-A	B.7
405917	MOP130D	B.18
405918	MS4L1M20-A	B.7
405919	MS31M25-A	B.7
405920	MS4L1M25-A	B.7
405921	FA31WS16T	B.4
405922	FA41WS16T	B.4
405923	FA31WS25T	B.4
405924	FA41WS25T	B.4
405925	FA32WS32T	B.4
405926	FA42WS32T	B.4
405927	FA32WS40T	B.4
405928	FA42WS40T	B.4
405929	MS32M20-A	B.7
405930	MS4L2M20-A	B.7
405931	MS32M25-A	B.7
405932	MS4L2M25-A	B.7
405933	FA31FS16T	B.5
405934	FA41FS16T	B.5
405935	FA31FS25T	B.5
405936	FA41FS25T	B.5
405937	FA32FS32T	B.5
405938	FA42FS32T	B.5
405939	FA32FS40T	B.5
405940	FA42FS40T	B.5
405941	MS32M32-A	B.7
405942	MS4L2M32-A	B.7
405943	MS32M40-A	B.7
405944	MS4L2M40-A	B.7
405945	FA31WN16T	B.8
405946	FA41WN16T	B.8
405947	FA31WN25T	B.8
405948	FA41WN25T	B.8
405949	FA32WN32T	B.8
405950	FA42WN32T	B.8
405951	FA32WN40T	B.8
405952	FA42WN40T	B.8
405953	MN31M04-A	B.11
405954	MN4L1M04-A	B.11
405955	MN31M06-A	B.11
405956	MN4L1M06-A	B.11
405957	FA31FN16T	B.9
405958	FA41FN16T	B.9
405959	FA31FN25T	B.9
405960	FA41FN25T	B.9
405961	FA32FN32T	B.9
405962	FA42FN32T	B.9
405963	FA32FN40T	B.9
405964	FA42FN40T	B.9
405965	MN31M08-A	B.11
405966	MN4L1M08-A	B.11
405967	MN31M10-A	B.11
405968	MN4L1M10-A	B.11
405969	MN31M12-A	B.11
405970	MN4L1M12-A	B.11
405971	MN31M16-A	B.11
405972	MN4L1M16-A	B.11
405973	FA32WH32T	B.12
405974	FA42WH32T	B.12
405975	FA32WH40T	B.12
405976	FA42WH40T	B.12
405977	MN31M20-A	B.11
405978	MN4L1M20-A	B.11
405979	MN31M25-A	B.11
405980	MN4L1M25-A	B.11
405981	MN32M20-A	B.11
405982	MN4L2M20-A	B.11
405983	MN32M25-A	B.11
405984	MN4L2M25-A	B.11
405985	FA32FH32T	B.12
405986	FA42FH32T	B.12
405987	FA32FH40T	B.12
405988	FA42FH40T	B.12
405989	MN32M32-A	B.11
405990	MN4L2M32-A	B.11
405991	MN32M40-A	B.11
405992	MN4L2M40-A	B.11
405994	MN4R1W20-A	B.10
405995	MS31M20-A	B.7
405996	MN4R1W25-A	B.10
405997	MH32M08-A	B.15
405998	MH4L2M08-A	B.15
405999	MH32M10-A	B.15
406000		
406000	MH4L2M10-A	B.15
406001	MH32M12-A	B.15
406002	MH4L2M12-A	B.15
406003	MH32M16-A	B.15
406004	MH4L2M16-A	B.15
406005	MH32M20-A	B.15
406006	MH4L2M20-A	B.15
406007	MH32M25-A	B.15
406008	MH4L2M25-A	B.15
406009	MH32M32-A	B.15
406010	MH4L2M32-A	B.15
406011	MH32M40-A	B.15
406012	MH4L2M40-A	B.15
406020	MN4R2W20-A	B.10
406021	FA31WS16B	B.4
406022	FA41WS16B	B.4
406023	FA31WS25B	B.4
406024	FA41WS25B	B.4
406025	FA32WS32B	B.4
406026	FA42WS32B	B.4
406027	FA32WS40B	B.4
406028	FA42WS40B	B.4
406032	MN4R2W25-A	B.10
406033	FA31FS16B	B.5
406034	FA41FS16B	B.5
406035	FA31FS25B	B.5
406036	FA41FS25B	B.5
406037	FA32FS32B	B.5
406038	FA42FS32B	B.5
406039	FA32FS40B	B.5
406040	FA42FS40B	B.5
406042	MN4R2W32-A	B.10
406044	MN4R2W40-A	B.10
406045	FA31WN16B	B.8
406046	FA41WN16B	B.8
406047	FA31WN25B	B.8
406048	FA41WN25B	B.8

Ref. no.	Cat. no.	Page
406049	FA32WN32B	B.8
406050	FA42WN32B	B.8
406051	FA32WN40B	B.8
406052	FA42WN40B	B.8
406054	MN4R1F04-A	B.10
406094	MN4R1F06-A	B.10
406096	MN4R1F08-A	B.10
406098	MN4R1F10-A	B.10
406112	TRIPCS	B.18
406114	MN4R1F12-A	B.10
406116	MN4R1F16-A	B.10
406118	MN4R1F20-A	B.10
406120	MN4R1F25-A	B.10
406122	MN4R2F20-A	B.10
406124	MN4R2F25-A	B.10
406126	MN4R2F32-A	B.10
406128	MN4R2F40-A	B.10
406130	MH4R2W08-A	B.14
406132	MH4R2W12-A	B.14
406134	MH4R2W10-A	B.14
406136	MH4R2W16-A	B.14
406138	MH4R2W20-A	B.14
406140	MH4R2W25-A	B.14
406142	MH4R2W32-A	B.14
406144	MH4R2W40-A	B.14
406146	MH4R2F08-A	B.14
406148	MH4R2F10-A	B.14
406150	MH4R2F12-A	B.14
406152	MH4R2F16-A	B.14
406154	MH4R2F20-A	B.14
406156	MH4R2F25-A	B.14
406158	MH4R2F32-A	B.14
406160	MH4R2F40-A	B.14
406162	MS4R1M04-A	B.7
406164	MS4R1M06-A	B.7
406166	MS4R1M08-A	B.7
406168	MS4R1M10-A	B.7
406170	MS4R1M12-A	B.7
406172	MS4R1M16-A	B.7
406174	MS4R1M20-A	B.7
406176	MS4R1M25-A	B.7
406177	MS31W04-A	B.6
406178	MS4L1W04-A	B.6
406179	MS31W06-A	B.6
406180	MS4L1W06-A	B.6
406181	MS31W08-A	B.6
406182	MS4L1W08-A	B.6
406183	MS31W10-A	B.6
406184	MS4L1W10-A	B.6
406185	MS31W12-A	B.6
406186	MS4L1W12-A	B.6
406187	MS31W16-A	B.6
406188	MS4L1W16-A	B.6
406189	MS31W20-A	B.6
406190	MS4L1W20-A	B.6
406191	MS31W25-A	B.6
406192	MS4L1W25-A	B.6
406193	MS32W20-A	B.6
406194	MS4L2W20-A	B.6
406195	MS32W25-A	B.6
406196	MS4L2W25-A	B.6
406197	MS32W32-A	B.6
406198	MS4L2W32-A	B.6
406199	MS32W40-A	B.6
406200	MS4L2W40-A	B.6
406208	MS4R2M20-A	B.7
406214	MS4R2M25-A	B.7
406216	MS4R2M32-A	B.7
406218	MS4R2M40-A	B.7
406220	MN4R1M04-A	B.11
406222	MN4R1M06-A	B.11
406224	MN4R1M08-A	B.11
406226	MN4R1M10-A	B.11
406228	MN4R1M12-A	B.11
406230	MN4R1M16-A	B.11
406232	MN4R1M20-A	B.11
406234	MN4R1M25-A	B.11
406236	MN4R2M20-A	B.11
406238	MN4R2M25-A	B.11
406240	MN4R2M32-A	B.11
406242	MN4R2M40-A	B.11
406244	MH4R2M08-A	B.15
406246	MH4R2M10-A	B.15
406248	MH4R2M12-A	B.15
406250	MH4R2M16-A	B.15
406252	MH4R2M20-A	B.15
406254	MH4R2M25-A	B.15
406256	MH4R2M32-A	B.15
406258	MH4R2M40-A	B.15

Ref. no.	Cat. no.	Page
406260	MS4R1W04-A	B.6
406262	MS4R1W06-A	B.6
406264	MS4R1W08-A	B.6
406266	MS4R1W10-A	B.6
406268	MS4R1W12-A	B.6
406270	MS4R1W16-A	B.6
406272	MS4R1W20-A	B.6
406274	MS4R1W25-A	B.6
406276	MS4R2W20-A	B.6
406278	MS4R2W25-A	B.6
406280	MS4R2W32-A	B.6
406282	MS4R2W40-A	B.6
406322	UVTD48	B.18
406326	UVTD130	B.18
406335	RONLKEY	B.19
406337	RONCASNK	B.19
406338	RONWKEY	B.19
406339	RONWKEYFF	B.19
406340	2WCI3PF	B.19
406341	2WCI4PF	B.19
406342	2WCI3PW	B.19
406343	2WCI4PW	B.19
406348	B13WCI3PF	B.19
406349	B13WCI4PF	B.19
406350	B13WCI3PW	B.19
406351	B13WCI4PW	B.19
406356	C23WCI3PF	B.19
406357	C23WCI4PF	B.19
406358	C23WCI3PW	B.19
406359	C23WCI4PW	B.19
406364	D13WCI3PF	B.19
406365	D13WCI4PF	B.19
406366	D13WCI3PW	B.19
406367	D13WCI4PW	B.19
406393	MPRACKHAN	B.19
406966	D13WCI3PWCON	B.19
406967	D13WCI4PWCON	B.19
406968	D13WCI3PFCON	B.19
406969	D13WCI4PFCON	B.19
406970	D13WCIF23PWCON	B.19
406971	D13WCIF24PWCON	B.19
406972	D13WCIF23PFCON	B.19
406973	D13WCIF24PFCON	B.19
407000		
407999	GTUTK20	B.16
408000		
408870	GL100M3-SF	B.16
408871	GL100M5-SF	B.16
408872	GH100M7-6SF	B.16
408873	GQ100M7-6SF	B.16
408874	GL200M3-SF	B.16
408875	GL200M5-SF	B.16
408876	GH200M7-6SF	B.16
408877	GQ200M7-6SF	B.16
408882	GL100M3-SR	B.17
408883	GL100M5-SR	B.17
408884	GH100M7-6SR	B.17
408885	GQ100M7-6SF	B.17
408886	GL200M3-SR	B.17
408887	GL200M5-SR	B.17
408888	GH200M7-6SR	B.17
408889	GQ200M7-6SF	B.17

Cat. no.	Ref. no.	Page
1...		
100BCMCI	405531	B.19
160BCMCI	405532	B.19
2...		
200BCMCI	405533	B.19
250BCMCI	405610	B.19
2WCI3PF	406340	B.19
2WCI3PW	406342	B.19
2WCI4PF	406341	B.19
2WCI4PW	406343	B.19
2WCIF23PF	405463	B.19
2WCIF23PW	405459	B.19
2WCIF24PF	405465	B.19
2WCIF24PW	405461	B.19
2WPFC	405451	B.18
3...		
300BCMCI	405611	B.19
350BCMCI	405612	B.19
4...		
400BCMCI	405613	B.19
A...		
ACBLIFT	405607	B.19
ACBMID	405605	B.19
ACBMIL	405505	B.19
ARC16	405787	B.20
ARC25	405790	B.20
ARC32H	405788	B.20
ARC32SN	405791	B.20
ARC40H	405789	B.20
ARC40SN	405792	B.20
B...		
B13WCI3PF	406348	B.19
B13WCI3PW	406350	B.19
B13WCI4PF	406349	B.19
B13WCI4PW	406351	B.19
B13WCIF23PF	405479	B.19
B13WCIF23PW	405475	B.19
B13WCIF24PF	405481	B.19
B13WCIF24PW	405477	B.19
C...		
C23WCI3PF	406356	B.19
C23WCI3PW	406358	B.19
C23WCI4PF	406357	B.19
C23WCI4PW	406359	B.19
C23WCIF23PF	405495	B.19
C23WCIF23PW	405491	B.19
C23WCIF24PF	405497	B.19
C23WCIF24PW	405493	B.19
CASLOK	405570	B.19
CC130	405426	B.18
CC250	405428	B.18
CC30	405420	B.18
CC48	405422	B.18
CLC125	405771	B.20
CLC232	405772	B.20
CLC240	405773	B.20
CLCN116	405770	B.20
CLCS116	405769	B.20
CSWFF	405580	B.18
CSWL	405581	B.18
D...		
D13WCI3PF	406364	B.19
D13WCI3PFCON	406968	B.19
D13WCI3PW	406366	B.19
D13WCI3PWCON	406966	B.19
D13WCI4PF	406365	B.19
D13WCI4PFCON	406969	B.19
D13WCI4PW	406367	B.19
D13WCI4PWCON	406967	B.19
D13WCIF23PF	405515	B.19
D13WCIF23PFCON	406972	B.19
D13WCIF23PW	405511	B.19
D13WCIF23PWCON	406970	B.19
D13WCIF24PF	405517	B.19
D13WCIF24PFCON	406973	B.19
D13WCIF24PW	405513	B.19
D13WCIF24PWCON	406971	B.19
DILHS	405578	B.19
DIRHS	405579	B.19
E...		
EDF13P16	405661	B.5
EDF13P25	405663	B.5
EDF14P16	405660	B.5
EDF14P25	405662	B.5
EDF23P40	405665	B.5
EDF24P40	405664	B.5
ELCT10001	405684	B.20
ELCT10002	405714	B.20
ELCT12501	405685	B.20

Cat. no.	Ref. no.	Page
ELCT12502	405715	B.20
ELCT16001	405686	B.20
ELCT16002	405716	B.20
ELCT20001	405687	B.20
ELCT20002	405717	B.20
ELCT25001	405688	B.20
ELCT25002	405718	B.20
ELCT32002	405689	B.20
ELCT40002	405690	B.20
ELCT8001	405683	B.20
ELCT8002	405713	B.20
F...		
FA31FN16B	405557	B.9
FA31FN16T	405957	B.9
FA31FN25B	405559	B.9
FA31FN25T	405959	B.9
FA31FS16B	406033	B.5
FA31FS16T	405933	B.5
FA31FS25B	406035	B.5
FA31FS25T	405935	B.5
FA31WN16B	406045	B.8
FA31WN16T	405945	B.8
FA31WN25B	406047	B.8
FA31WN25T	405947	B.8
FA31WS16B	406021	B.4
FA31WS16T	405921	B.4
FA31WS25B	406023	B.4
FA31WS25T	405923	B.4
FA32FH32B	405565	B.12
FA32FH32T	405985	B.12
FA32FH40B	405567	B.12
FA32FH40T	405987	B.12
FA32FN32B	405561	B.9
FA32FN32T	405961	B.9
FA32FN40B	405563	B.9
FA32FN40T	405963	B.9
FA32FS32B	406037	B.5
FA32FS32T	405937	B.5
FA32FS40B	406039	B.5
FA32FS40T	405939	B.5
FA32WH32B	405553	B.12
FA32WH32T	405973	B.12
FA32WH40B	405555	B.12
FA32WH40T	405975	B.12
FA32WN32B	406049	B.8
FA32WN32T	405949	B.8
FA32WN40B	406051	B.8
FA32WN40T	405951	B.8
FA32WS32B	406025	B.4
FA32WS32T	405925	B.4
FA32WS40B	406027	B.4
FA32WS40T	405927	B.4
FA41FN16B	405558	B.9
FA41FN16T	405958	B.9
FA41FN25B	405560	B.9
FA41FN25T	405960	B.9
FA41FS16B	406034	B.5
FA41FS16T	405934	B.5
FA41FS25B	406036	B.5
FA41FS25T	405936	B.5
FA41WN16B	406046	B.8
FA41WN16T	405946	B.8
FA41WN25B	406048	B.8
FA41WN25T	405948	B.8
FA41WS16B	406022	B.4
FA41WS16T	405922	B.4
FA41WS25B	406024	B.4
FA41WS25T	405924	B.4
FA42FH32B	405566	B.12
FA42FH32T	405986	B.12
FA42FH40B	405568	B.12
FA42FH40T	405988	B.12
FA42FN32B	405562	B.9
FA42FN32T	405962	B.9
FA42FN40B	405564	B.9
FA42FN40T	405964	B.9
FA42FS32B	406038	B.5
FA42FS32T	405938	B.5
FA42FS40B	406040	B.5
FA42FS40T	405940	B.5
FA42WH32B	405554	B.12
FA42WH32T	405974	B.12
FA42WH40B	405556	B.12
FA42WH40T	405976	B.12
FA42WN32B	406050	B.8
FA42WN32T	405950	B.8
FA42WN40B	406052	B.8
FA42WN40T	405952	B.8
FA42WS32B	406026	B.4

Cat. no.	Ref. no.	Page
FA42WS32T	405926	B.4
FA42WS40B	406028	B.4
FA42WS40T	405928	B.4
FAC125	405742	B.20
FAC232	405744	B.20
FAC240	405746	B.20
FACN116	405740	B.20
FACS116	405738	B.20
FORLOK	405569	B.19
FXWD31N16	405666	B.18
FXWD31S16	405667	B.18
FXWD31SN25	405668	B.18
FXWD32SNH32	405669	B.18
FXWD32SNH40	405670	B.18
FXWD41S16	405671	B.18
FXWD41SN25	405672	B.18
FXWD42SNH32	405673	B.18
FXWD42SNH40	405674	B.18
G...		
GH100M7-6SF	408872	B.16
GH100M7-6SR	408884	B.17
GH200M7-6SF	408876	B.16
GH200M7-6SR	408888	B.17
GL100M3-SF	408870	B.16
GL100M3-SR	408882	B.17
GL100M5-SF	408871	B.16
GL100M5-SR	408883	B.17
GL200M3-SF	408874	B.16
GL200M3-SR	408886	B.17
GL200M5-SF	408875	B.16
GL200M5-SR	408887	B.17
GQ100M7-6SF	408873	B.16
GQ200M7-6SF	408877	B.16
GTUTK20	407999	B.16
I...		
IP54DOOR	405606	B.19
M...		
MAC125	405743	B.20
MAC232	405745	B.20
MAC240	405747	B.20
MACN116	405741	B.20
MACS116	405739	B.20
MH32C32	405357	B.13
MH32C40	405359	B.13
MH32F08	405257	B.12
MH32F08-A	405881	B.14
MH32F10	405259	B.12
MH32F10-A	405889	B.14
MH32F12	405261	B.12
MH32F12-A	405891	B.14
MH32F16	405263	B.12
MH32F16-A	405893	B.14
MH32F20	405265	B.12
MH32F20-A	405895	B.14
MH32F25	405267	B.12
MH32F25-A	405897	B.14
MH32F32	405273	B.12
MH32F32-A	405899	B.14
MH32F40	405275	B.12
MH32F40-A	405901	B.14
MH32M08	405867	B.13
MH32M08-A	405997	B.15
MH32M10	405869	B.13
MH32M10-A	405999	B.15
MH32M12	405871	B.13
MH32M12-A	406001	B.15
MH32M16	405873	B.13
MH32M16-A	406003	B.15
MH32M20	405875	B.13
MH32M20-A	406005	B.15
MH32M25	405877	B.13
MH32M25-A	406007	B.15
MH32M32	405883	B.13
MH32M32-A	406009	B.15
MH32M40	405885	B.13
MH32M40-A	406011	B.15
MH32W08	405227	B.12
MH32W08-A	405797	B.14
MH32W10	405229	B.12
MH32W10-A	405799	B.14
MH32W12	405231	B.12
MH32W12-A	405801	B.14
MH32W16	405233	B.12
MH32W16-A	405829	B.14
MH32W20	405235	B.12
MH32W20-A	405831	B.14
MH32W25	405237	B.12
MH32W25-A	405859	B.14
MH32W32	405243	B.12
MH32W32-A	405861	B.14
MH32W40	405245	B.12
MH32W40-A	405863	B.14
MH42C32	405356	B.13
MH42C40	405358	B.13
MH4L2F08	405256	B.12
MH4L2F08-A	405880	B.14
MH4L2F10	405258	B.12
MH4L2F10-A	405888	B.14
MH4L2F12	405260	B.12
MH4L2F12-A	405890	B.14
MH4L2F16	405262	B.12
MH4L2F16-A	405892	B.14
MH4L2F20	405264	B.12
MH4L2F20-A	405894	B.14
MH4L2F25	405266	B.12
MH4L2F25-A	405896	B.14
MH4L2F32	405272	B.12
MH4L2F32-A	405898	B.14
MH4L2F40	405274	B.12
MH4L2F40-A	405900	B.14
MH4L2M08	405868	B.13
MH4L2M08-A	405998	B.15
MH4L2M10	405870	B.13
MH4L2M10-A	406000	B.15
MH4L2M12	405872	B.13
MH4L2M12-A	406002	B.15
MH4L2M16	405874	B.13
MH4L2M16-A	406004	B.15
MH4L2M20	405876	B.13
MH4L2M20-A	406006	B.15
MH4L2M25	405878	B.13
MH4L2M25-A	406008	B.15
MH4L2M32	405884	B.13
MH4L2M32-A	406010	B.15
MH4L2M40	405886	B.13
MH4L2M40-A	406012	B.15
MH4L2W08	405226	B.12
MH4L2W08-A	405796	B.14
MH4L2W10	405228	B.12
MH4L2W10-A	405802	B.14
MH4L2W12	405230	B.12
MH4L2W12-A	405798	B.14
MH4L2W16	405232	B.12
MH4L2W16-A	405828	B.14
MH4L2W20	405234	B.12
MH4L2W20-A	405830	B.14
MH4L2W25	405236	B.12
MH4L2W25-A	405858	B.14
MH4L2W32	405242	B.12
MH4L2W32-A	405860	B.14
MH4L2W40	405244	B.12
MH4L2W40-A	405862	B.14
MH4R2F08	405509	B.12
MH4R2F08-A	406146	B.14
MH4R2F10	405510	B.12
MH4R2F10-A	406148	B.14
MH4R2F12	405512	B.12
MH4R2F12-A	406150	B.14
MH4R2F16	405514	B.12
MH4R2F16-A	406152	B.14
MH4R2F20	405516	B.12
MH4R2F20-A	406154	B.14
MH4R2F25	405518	B.12
MH4R2F25-A	406156	B.14
MH4R2F32	405520	B.12
MH4R2F32-A	406158	B.14
MH4R2F40	405522	B.12
MH4R2F40-A	406160	B.14
MH4R2M08	405638	B.13
MH4R2M08-A	406244	B.15
MH4R2M10	405640	B.13
MH4R2M10-A	406246	B.15
MH4R2M12	405642	B.13
MH4R2M12-A	406248	B.15
MH4R2M16	405644	B.13
MH4R2M16-A	406250	B.15
MH4R2M20	405646	B.13
MH4R2M20-A	406252	B.15
MH4R2M25	405648	B.13
MH4R2M25-A	406254	B.15
MH4R2M32	405650	B.13
MH4R2M32-A	406256	B.15
MH4R2M40	405652	B.13
MH4R2M40-A	406258	B.15
MH4R2W08	405494	B.12
MH4R2W08-A	406130	B.14
MH4R2W10	405496	B.12
MH4R2W10-A	406134	B.14
MH4R2W12	405498	B.12
MH4R2W12-A	406132	B.14
MH4R2W16	405500	B.12
MH4R2W16-A	406136	B.14
MH4R2W20	405502	B.12
MH4R2W20-A	406138	B.14
MH4R2W25	405504	B.12
MH4R2W25-A	406140	B.14
MH4R2W32	405506	B.12
MH4R2W32-A	406142	B.14
MH4R2W40	405508	B.12
MH4R2W40-A	406144	B.14
MN31C25	405345	B.9
MN31F04	405193	B.8
MN31F04-A	405657	B.10
MN31F06	405195	B.8
MN31F06-A	405659	B.10
MN31F08	405197	B.8
MN31F08-A	405681	B.10
MN31F10	405199	B.8
MN31F10-A	405721	B.10
MN31F12	405201	B.8
MN31F12-A	405731	B.10
MN31F16	405203	B.8
MN31F16-A	405733	B.10
MN31F20	405205	B.8
MN31F20-A	405735	B.10
MN31F25	405207	B.8
MN31F25-A	405737	B.10
MN31M04	405833	B.9
MN31M04-A	405953	B.11
MN31M06	405835	B.9
MN31M06-A	405955	B.11
MN31M08	405837	B.9
MN31M08-A	405965	B.11
MN31M10	405839	B.9
MN31M10-A	405967	B.11
MN31M12	405841	B.9
MN31M12-A	405969	B.11
MN31M16	405843	B.9
MN31M16-A	405971	B.11
MN31M20	405845	B.9
MN31M20-A	405977	B.11
MN31M25	405847	B.9
MN31M25-A	405979	B.11
MN31W04	405163	B.8
MN31W04-A	405351	B.10
MN31W06	405165	B.8
MN31W06-A	405353	B.10
MN31W08	405167	B.8
MN31W08-A	405361	B.10
MN31W10	405169	B.8
MN31W10-A	405363	B.10
MN31W12	405171	B.8
MN31W12-A	405412	B.10
MN31W16	405173	B.8
MN31W16-A	405415	B.10
MN31W20	405175	B.8
MN31W20-A	405417	B.10
MN31W25	405177	B.8
MN31W25-A	405419	B.10
MN32C32	405347	B.9
MN32C40	405349	B.9
MN32F20	405209	B.8
MN32F20-A	405779	B.10
MN32F25	405211	B.8
MN32F25-A	405781	B.10
MN32F32	405213	B.8
MN32F32-A	405783	B.10
MN32F40	405215	B.8
MN32F40-A	405785	B.10
MN32M20	405849	B.9
MN32M20-A	405981	B.11
MN32M25	405851	B.9
MN32M25-A	405983	B.11
MN32M32	405853	B.9
MN32M32-A	405989	B.11
MN32M40	405855	B.9
MN32M40-A	405991	B.11
MN32W20	405179	B.8
MN32W20-A	405425	B.10
MN32W25	405181	B.8
MN32W25-A	405445	B.10
MN32W32	405183	B.8
MN32W32-A	405453	B.10
MN32W40	405185	B.8
MN32W40-A	405455	B.10
MN41C25	405344	B.9
MN42C32	405346	B.9
MN42C40	405348	B.9
MN4L1F04	405192	B.8
MN4L1F04-A	405656	B.10
MN4L1F06	405194	B.8
MN4L1F06-A	405658	B.10
MN4L1F08	405196	B.8
MN4L1F08-A	405680	B.10
MN4L1F10	405198	B.8
MN4L1F10-A	405720	B.10
MN4L1F12	405200	B.8
MN4L1F12-A	405730	B.10
MN4L1F16	405202	B.8
MN4L1F16-A	405732	B.10
MN4L1F20	405204	B.8
MN4L1F20-A	405734	B.10
MN4L1F25	405206	B.8
MN4L1F25-A	405736	B.10
MN4L1M04	405834	B.9
MN4L1M04-A	405954	B.11
MN4L1M06	405836	B.9
MN4L1M06-A	405956	B.11
MN4L1M08	405838	B.9
MN4L1M08-A	405966	B.11
MN4L1M10	405840	B.9
MN4L1M10-A	405968	B.11
MN4L1M12	405842	B.9
MN4L1M12-A	405970	B.11
MN4L1M16	405844	B.9
MN4L1M16-A	405972	B.11
MN4L1M20	405846	B.9
MN4L1M20-A	405978	B.11
MN4L1M25	405848	B.9
MN4L1M25-A	405980	B.11
MN4L1W04	405162	B.8
MN4L1W04-A	405350	B.10
MN4L1W06	405164	B.8
MN4L1W06-A	405352	B.10
MN4L1W08	405166	B.8
MN4L1W08-A	405360	B.10
MN4L1W10	405168	B.8
MN4L1W10-A	405362	B.10
MN4L1W12	405170	B.8
MN4L1W12-A	405410	B.10
MN4L1W16	405172	B.8
MN4L1W16-A	405414	B.10
MN4L1W20	405174	B.8
MN4L1W20-A	405416	B.10
MN4L1W25	405176	B.8
MN4L1W25-A	405418	B.10
MN4L2F20	405208	B.8
MN4L2F20-A	405778	B.10
MN4L2F25	405210	B.8
MN4L2F25-A	405780	B.10
MN4L2F32	405212	B.8
MN4L2F32-A	405782	B.10
MN4L2F40	405214	B.8
MN4L2F40-A	405784	B.10
MN4L2M20	405850	B.9
MN4L2M20-A	405982	B.11
MN4L2M25	405852	B.9
MN4L2M25-A	405984	B.11
MN4L2M32	405854	B.9
MN4L2M32-A	405990	B.11
MN4L2M40	405856	B.9
MN4L2M40-A	405992	B.11
MN4L2W20	405178	B.8
MN4L2W20-A	405424	B.10
MN4L2W25	405180	B.8
MN4L2W25-A	405444	B.10
MN4L2W32	405182	B.8
MN4L2W32-A	405452	B.10
MN4L2W40	405184	B.8
MN4L2W40-A	405454	B.10
MN4R1F04	405470	B.8
MN4R1F04-A	406054	B.10
MN4R1F06	405472	B.8
MN4R1F06-A	406094	B.10
MN4R1F08	405474	B.8
MN4R1F08-A	406096	B.10
MN4R1F10	405476	B.8
MN4R1F10-A	406098	B.10
MN4R1F12	405478	B.8
MN4R1F12-A	406114	B.10
MN4R1F16	405480	B.8
MN4R1F16-A	406116	B.10
MN4R1F20	405482	B.8
MN4R1F20-A	406118	B.10
MN4R1F25	405484	B.8
MN4R1F25-A	406120	B.10

Cat. no.	Ref. no.	Page
MN4R1M04	405596	B.9
MN4R1M04-A	406220	B.11
MN4R1M06	405598	B.9
MN4R1M06-A	406222	B.11
MN4R1M08	405602	B.9
MN4R1M08-A	406224	B.11
MN4R1M10	405604	B.9
MN4R1M10-A	406226	B.11
MN4R1M12	405622	B.9
MN4R1M12-A	406228	B.11
MN4R1M16	405624	B.9
MN4R1M16-A	406230	B.11
MN4R1M20	405626	B.9
MN4R1M20-A	406232	B.11
MN4R1M25	405628	B.9
MN4R1M25-A	406234	B.11
MN4R1W04	405430	B.8
MN4R1W04-A	405832	B.10
MN4R1W06	405432	B.8
MN4R1W06-A	405864	B.10
MN4R1W08	405434	B.8
MN4R1W08-A	405866	B.10
MN4R1W10	405436	B.8
MN4R1W10-A	405882	B.10
MN4R1W12	405438	B.8
MN4R1W12-A	405902	B.10
MN4R1W16	405456	B.8
MN4R1W16-A	405904	B.10
MN4R1W20	405458	B.8
MN4R1W20-A	405994	B.10
MN4R1W25	405460	B.8
MN4R1W25-A	405996	B.10
MN4R2F20	405486	B.8
MN4R2F20-A	406122	B.10
MN4R2F25	405488	B.8
MN4R2F25-A	406124	B.10
MN4R2F32	405490	B.8
MN4R2F32-A	406126	B.10
MN4R2F40	405492	B.8
MN4R2F40-A	406128	B.10
MN4R2M20	405630	B.9
MN4R2M20-A	406236	B.11
MN4R2M25	405632	B.9
MN4R2M25-A	406238	B.11
MN4R2M32	405634	B.9
MN4R2M32-A	406240	B.11
MN4R2M40	405636	B.9
MN4R2M40-A	406242	B.11
MN4R2W20	405462	B.8
MN4R2W20-A	406020	B.10
MN4R2W25	405464	B.8
MN4R2W25-A	406032	B.10
MN4R2W32	405466	B.8
MN4R2W32-A	406042	B.10
MN4R2W40	405468	B.8
MN4R2W40-A	406044	B.10
MOC	405576	B.19
MOP130A	405446	B.18
MOP130D	405917	B.18
MOP250A	405448	B.18
MOP30	405440	B.18
MOP48	405442	B.18
MPRACKHAN	406393	B.19
MPROAPU	405547	B.16
MS31C16	405341	B.5
MS31C25	405343	B.5
MS31F04	405133	B.4
MS31F04-A	405217	B.6
MS31F06	405135	B.4
MS31F06-A	405219	B.6
MS31F08	405137	B.4
MS31F08-A	405239	B.6
MS31F10	405139	B.4
MS31F10-A	405241	B.6
MS31F12	405141	B.4
MS31F12-A	405247	B.6
MS31F16	405143	B.4
MS31F16-A	405249	B.6
MS31F20	405145	B.4
MS31F20-A	405251	B.6
MS31F25	405147	B.4
MS31F25-A	405253	B.6
MS31M04	405803	B.5
MS31M04-A	405905	B.7
MS31M06	405805	B.5
MS31M06-A	405907	B.7
MS31M08	405807	B.5
MS31M08-A	405909	B.7
MS31M10	405809	B.5
MS31M10-A	405911	B.7
MS31M12	405811	B.5
MS31M12-A	405913	B.7
MS31M16	405813	B.5
MS31M16-A	405915	B.7
MS31M20	405815	B.5
MS31M20-A	405995	B.7
MS31M25	405817	B.5
MS31M25-A	405919	B.7
MS31W04	405103	B.4
MS31W04-A	406177	B.6
MS31W06	405105	B.4
MS31W06-A	406179	B.6
MS31W08	405107	B.4
MS31W08-A	406181	B.6
MS31W10	405109	B.4
MS31W10-A	406183	B.6
MS31W12	405111	B.4
MS31W12-A	406185	B.6
MS31W16	405113	B.4
MS31W16-A	406187	B.6
MS31W20	405115	B.4
MS31W20-A	406189	B.6
MS31W25	405117	B.4
MS31W25-A	406191	B.6
MS32C32	405355	B.5
MS32C40	405365	B.5
MS32F20	405149	B.4
MS32F20-A	405255	B.6
MS32F25	405151	B.4
MS32F25-A	405269	B.6
MS32F32	405153	B.4
MS32F32-A	405271	B.6
MS32F40	405155	B.4
MS32F40-A	405277	B.6
MS32M20	405819	B.5
MS32M20-A	405929	B.7
MS32M25	405821	B.5
MS32M25-A	405931	B.7
MS32M32	405823	B.5
MS32M32-A	405941	B.7
MS32M40	405825	B.5
MS32M40-A	405943	B.7
MS32W20	405119	B.4
MS32W20-A	406193	B.6
MS32W25	405121	B.4
MS32W25-A	406195	B.6
MS32W32	405123	B.4
MS32W32-A	406197	B.6
MS32W40	405125	B.4
MS32W40-A	406199	B.6
MS41C16	405340	B.5
MS41C25	405342	B.5
MS42C32	405354	B.5
MS42C40	405364	B.5
MS4L1F04	405132	B.4
MS4L1F04-A	405216	B.6
MS4L1F06	405134	B.4
MS4L1F06-A	405218	B.6
MS4L1F08	405136	B.4
MS4L1F08-A	405238	B.6
MS4L1F10	405138	B.4
MS4L1F10-A	405240	B.6
MS4L1F12	405140	B.4
MS4L1F12-A	405246	B.6
MS4L1F16	405142	B.4
MS4L1F16-A	405248	B.6
MS4L1F20	405144	B.4
MS4L1F20-A	405250	B.6
MS4L1F25	405146	B.4
MS4L1F25-A	405252	B.6
MS4L1M04	405804	B.5
MS4L1M04-A	405906	B.7
MS4L1M06	405806	B.5
MS4L1M06-A	405908	B.7
MS4L1M08	405808	B.5
MS4L1M08-A	405910	B.7
MS4L1M10	405810	B.5
MS4L1M10-A	405912	B.7
MS4L1M12	405812	B.5
MS4L1M12-A	405914	B.7
MS4L1M16	405814	B.5
MS4L1M16-A	405916	B.7
MS4L1M20	405816	B.5
MS4L1M20-A	405918	B.7
MS4L1M25	405818	B.5
MS4L1M25-A	405920	B.7
MS4L1W04	405102	B.4
MS4L1W04-A	406178	B.6
MS4L1W06	405104	B.4
MS4L1W06-A	406180	B.6
MS4L1W08	405106	B.4
MS4L1W08-A	406182	B.6
MS4L1W10	405108	B.4
MS4L1W10-A	406184	B.6
MS4L1W12	405110	B.4
MS4L1W12-A	406186	B.6
MS4L1W16	405112	B.4
MS4L1W16-A	406188	B.6
MS4L1W20	405114	B.4
MS4L1W20-A	406190	B.6
MS4L1W25	405116	B.4
MS4L1W25-A	406192	B.6
MS4L2F20	405148	B.4
MS4L2F20-A	405254	B.6
MS4L2F25	405150	B.4
MS4L2F25-A	405268	B.6
MS4L2F32	405152	B.4
MS4L2F32-A	405270	B.6
MS4L2F40	405154	B.4
MS4L2F40-A	405276	B.6
MS4L2M20	405820	B.5
MS4L2M20-A	405930	B.7
MS4L2M25	405822	B.5
MS4L2M25-A	405932	B.7
MS4L2M32	405824	B.5
MS4L2M32-A	405942	B.7
MS4L2M40	405826	B.5
MS4L2M40-A	405944	B.7
MS4L2W20	405118	B.4
MS4L2W20-A	406194	B.6
MS4L2W25	405120	B.4
MS4L2W25-A	406196	B.6
MS4L2W32	405122	B.4
MS4L2W32-A	406198	B.6
MS4L2W40	405124	B.4
MS4L2W40-A	406200	B.6
MS4R1F04	405366	B.4
MS4R1F04-A	405186	B.6
MS4R1F06	405368	B.4
MS4R1F06-A	405278	B.6
MS4R1F08	405370	B.4
MS4R1F08-A	405296	B.6
MS4R1F10	405372	B.4
MS4R1F10-A	405298	B.6
MS4R1F12	405374	B.4
MS4R1F12-A	405390	B.6
MS4R1F16	405376	B.4
MS4R1F16-A	405392	B.6
MS4R1F20	405378	B.4
MS4R1F20-A	405404	B.6
MS4R1F25	405381	B.4
MS4R1F25-A	405682	B.6
MS4R1M04	405524	B.5
MS4R1M04-A	406162	B.7
MS4R1M06	405526	B.5
MS4R1M06-A	406164	B.7
MS4R1M08	405528	B.5
MS4R1M08-A	406166	B.7
MS4R1M10	405542	B.5
MS4R1M10-A	406168	B.7
MS4R1M12	405548	B.5
MS4R1M12-A	406170	B.7
MS4R1M16	405582	B.5
MS4R1M16-A	406172	B.7
MS4R1M20	405584	B.5
MS4R1M20-A	406174	B.7
MS4R1M25	405586	B.5
MS4R1M25-A	406176	B.7
MS4R1W04	405316	B.4
MS4R1W04-A	406260	B.6
MS4R1W06	405318	B.4
MS4R1W06-A	406262	B.6
MS4R1W08	405320	B.4
MS4R1W08-A	406264	B.6
MS4R1W10	405322	B.4
MS4R1W10-A	406266	B.6
MS4R1W12	405324	B.4
MS4R1W12-A	406268	B.6
MS4R1W16	405326	B.4
MS4R1W16-A	406270	B.6
MS4R1W20	405328	B.4
MS4R1W20-A	406272	B.6
MS4R1W25	405330	B.4
MS4R1W25-A	406274	B.6
MS4R2F20	405384	B.4
MS4R2F20-A	405712	B.6
MS4R2F25	405387	B.4
MS4R2F25-A	405722	B.6
MS4R2F32	405391	B.4
MS4R2F32-A	405748	B.6
MS4R2F40	405393	B.4
MS4R2F40-A	405786	B.6
MS4R2M20	405588	B.5
MS4R2M20-A	406208	B.7
MS4R2M25	405590	B.5
MS4R2M25-A	406214	B.7
MS4R2M32	405592	B.5
MS4R2M32-A	406216	B.7
MS4R2M40	405594	B.5
MS4R2M40-A	406218	B.7
MS4R2W20	405332	B.4
MS4R2W20-A	406276	B.6
MS4R2W25	405334	B.4
MS4R2W25-A	406278	B.6
MS4R2W32	405336	B.4
MS4R2W32-A	406280	B.6
MS4R2W40	405338	B.4
MS4R2W40-A	406282	B.6
P...		
PROCAS	405574	B.19
PROLOK	405572	B.19
R...		
RCMK10001	405704	B.20
RCMK10002	405724	B.20
RCMK12501	405705	B.20
RCMK12502	405725	B.20
RCMK16001	405706	B.20
RCMK16002	405726	B.20
RCMK20001	405707	B.20
RCMK20002	405727	B.20
RCMK25001	405708	B.20
RCMK25002	405728	B.20
RCMK32002	405709	B.20
RCMK40002	405710	B.20
RCMK8001	405703	B.20
RCMK8002	405723	B.20
RONCAS	405573	B.19
RONCASNK	406337	B.19
RONLKEY	406335	B.19
RONLOK	405571	B.19
RONWKEY	406338	B.19
RONWKEYFF	406339	B.19
RT1HOR	403680	B.4
RT1SNVFIX	405609	B.4
RT1SVFIX	405603	B.4
RT1UNI	405600	B.4
RT1VER	403681	B.4
RT2SNHVFIX	405621	B.4
RT2UNI	405601	B.4
S...		
SCC	405450	B.18
ST130	405386	B.18
ST250	405388	B.18
ST30	405380	B.18
ST440	405389	B.18
ST48	405382	B.18
T...		
TRIPCS	406112	B.18
U...		
UNIPLIER	405800	B.20
UV130A	405406	B.18
UV130D	405407	B.18
UV250	405408	B.18
UV30	405400	B.18
UV440	405409	B.18
UV48	405402	B.18
UVTD130	406326	B.18
UVTD250	405411	B.18
UVTD440	405413	B.18
UVTD48	406322	B.18

The policy of GE Energy is one of continuous improvement.
The right is reserved to alter the design or any structural details of the products at any time without giving notice.

October 2011
GE Industrial Solutions

GE Energy
Industrial Solutions

102331

Industrial Solutions, a division of GE Energy, is a first class European supplier of low and medium voltage products including wiring devices, residential and industrial electrical distribution components, automation products, enclosures and switchboards. Worldwide demand for GE Industrial Solutions' products comes from industrial facilities, wholesalers, installers, panelboard builders, contractors, OEM's and utilities.

www.ge.com/ex/industrialsolutions

Belgium
GE Industrial Belgium
Nieuwevaart 51
B-9000 Gent
Tel. +32 (0)9 265 21 11

Finland
GE Energy Industrial Solutions
Kuortaneenkatu 2
FI-00510 Helsinki
Tel. +358 (0)10 394 3760

France
GE Energy Industrial Solutions
Paris Nord 2
13, rue de la Perdrix
F-95958 Roissy CDG Cédex
Tel. +33 (0)800 912 816

Germany
GE Energy Industrial Solutions
Vor den Siebenburgen 2
D-50676 Köln
Tel. +49 (0)221 16539 - 0

Hungary
GE Hungary Kft.
Vaci ut 81-83.
H-1139 Budapest
Tel. +36 1 447 6050

Italia
GE Energy Industrial Solutions
Centro Direzionale Colleoni
Via Paracelso 16
Palazzo Andromeda B1
I-20041 Agrate Brianza (MB)
Tel. +39 2 61 773 1

Netherlands
GE Energy Industrial Solutions
Parallelweg 10
NI-7482 CA Haaksbergen
Tel. +31 (0)53 573 03 03

Poland
GE Power Controls
Ul. Odrowaza 15
03-310 Warszawa
Tel. +48 22 519 76 00

Portugal
GE Energy Industrial Solutions
Rua Camilo Castelo Branco, 805
Apartado 2770
4401-601 Vila Nova de Gaia
Tel. +351 22 374 60 00

Russia
GE Energy Industrial Solutions
27/8, Electrozavodskaya street
Moscow, 107023
Tel. +7 495 937 11 11

South Africa
GE Energy Industrial Solutions
Unit 4, 130 Gazelle Avenue
Corporate Park Midrand 1685
P.O. Box 76672 Wendywood 2144
Tel. +27 11 238 3000

Spain
GE Energy Industrial Solutions
P.I. Clot del Tufau, s/n
E-08295 Sant Vicenç de Castellet
Tel. +34 900 993 625

United Arab Emirates
GE Energy Industrial Solutions
1101, City Tower 2, Sheikh Zayed Road
P.O. Box 11549, Dubai
Tel. +971 43131202

United Kingdom
GE Energy Industrial Solutions
Houghton Centre
Salthouse Road
Blackmills
Northampton
NN4 7EX
Tel. +44 (0)800 587 1239

GE imagination at work

680809
Ref. I/3291/E/EX 3.0 Ed. 10/11
© Copyright GE Industrial Solutions 2011